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The Relationship of Positive Behavior Interventions and Supports (PBIS) on Co-located Urban High Schools Infractions, Suspensions, School Progress Grade and the School Environment

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The Relationship of Positive Behavior Interventions and Supports (PBIS) on Co-located Urban High Schools Infractions, Suspensions, School Progress Grade and the School Environment

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Dedication

I would like to acknowledge the many people who provided me encouragement, patience, and understanding as I pursued my doctorate. To my Dissertation Chair, Dr. Edward Sullivan, thank you for your guidance in taking small steps, for accepting nothing less than excellence. To my committee member Dr. Richard Maurer your support encouraged me to embrace a minimalist perspective as I reached my dissertation milestones. Thank you for affording me the opportunity to complete my doctoral studies. To Dr. Claudia Edwards, who reiterated, "Trust the process" throughout my dissertation voyage. To my husband Vincent, thank you for the countless hours of comfort and encouragement. I would like to recognize my brother James, for keeping me grounded on my dissertation journey. Team 1 Cheryl, Dozene, Michael, Satish, and Sterling, fondly known to me as Family and Cohort II you were my inspiration. To Dr. Selma Bartholomew, Dr. Rodney Loftin, Dr. Betty Rosa, and Audrey Baker, thank you for your assistance and contribution to my dissertation and facilitating my research.

Biographical Sketch

Carolyn Tyson is currently the Assistant Principal of Special Education in a New York City High School District. Ms. Tyson attended Lehman College from 1983 to 1987 and graduated with a Bachelor of Science degree in 1987. She attended Hunter College and Teachers College from 1992 to 1996 and graduated with a Master of Science degree in 1996. She attended the College of New Rochelle from 1996 to 1998 and graduated with a Master of Science in Education. She attended Fordham University from 2000 to 2002 and graduated with another Master of Science in Education and School Administration. She came to St. John Fisher College in the spring of 2010 and began her doctoral studies in the Ed.D. Program in Executive Leadership. Ms. Tyson pursued her research on safe schools in her dissertation entitled "The Relationship of Positive Behavior Interventions and Supports on Co-located Urban High Schools: Number of Infractions, Number of Suspensions, School Progress Grade, and School Environment. This dissertation study was completed under the direction of Dr. Edward Sullivan and Dr. Richard Maurer. Ms. Tyson received the Ed. D. degree in 2012.

Abstract

The responsibility for school administrators to provide a safe school environment demonstrates institutional accountability under the regulations of the Elementary and Secondary Education Act (ESEA) and the Individuals with Disabilities Education Act (IDEA). Students who violate the safety component of the public school discipline code face suspensions and expulsions. On average, students spend more than 16 million hours a year serving suspensions. This quantitative study examined the effect of Sugai's three-tiered Positive Behavior Interventions and Supports (PBIS) framework on co-located urban high schools. The study analyzed the relationship of the PBIS framework on the number of infractions, number of suspensions, school progress grade, and the safety and respect component of the school environment as measured by One-Way Analysis of Variance (ANOVA).

This research furthers previous research on school infractions based on violence and safe school indicators (i.e. robbery with or without weapons, assaults with or without weapons, arson, altercations with or without weapons, drug or alcohol possession and sex offenses). The sample of the co-located urban high schools implementing PBIS was 15 out of 18. Each co-located urban high school hosted five to nine schools with a combined student population of 36,906. The mean of each participating co-located high school's number of infraction, number of suspensions, school progress grade, and school environment were analyzed. The study indicated no significant difference between the independent variable PBIS and the dependent variables of co-located urban high schools.

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Chapter 1: Introduction

Introduction

Public perception of effective safe schools is measured by student behavior and school achievement (Waters, Marzano, & McNulty, 2003). School achievement is established using five factors: viable curriculum, challenging goals and effective feedback, parent and community involvement, safe and orderly learning environment, and collegiality and professionalism (Marzano, 2000). These factors in conjunction with school leadership and accountability of safe schools under the Elementary and Secondary Education Act (2004) provide a framework for school environment.

A National School Safety and Security (2010) profile of shootings in public schools including Plano, Texas; East Point, Georgia; New Port Richey, Florida; Canton, Ohio; Springfield, Oregon; Littleton, Colorado; and Chardon, Ohio that occurred between August 1990 and April 2012 indicated current school environment is neither safe nor stable for students and staff. The federal government's response to an increase in school shootings was to explore strict disciplinary regulations that would make schools safe (Krezmien, Leone, Zablock, & Wells, 2006). In 1994, Congress passed the Gun Free Schools Act to manage the increase of school shootings and violent acts from students.

Safe schools. In New York City, students spend more than 16 million hours serving suspensions. Suspended students are removed from the educational setting and have missed opportunities to engage with peers and teachers (U.S. Department of Education, 2007).

Assessment of the number of student infractions is an indicator of safe schools quantified through the number of school ODRs generated from parents, teachers, and staff members. ODRs from parents are defined as a daily progress report from teachers on student behavior. An annual survey, from the district in this study, asked for participation from parents, students, and teachers to evaluate the level of safety in neighborhood schools. To ensure public schools are safe and conducive for learning, a progressive discipline code handbook was developed by the Department of Education that is the subject of this study. A progressive discipline code handbook developed citywide standards of intervention and discipline measures to inform parents, teachers, and students of behavioral expectations. Sharing the citywide standards ensures the safety of schools; orderly environments where teaching and learning can occur and supports efforts of the school community. In addition, a bill of student rights and responsibilities, K-12 (2011) described acceptable social behaviors that promote positive student behavior and responsibility. Furthermore, as students become productive citizens they develop self –respect and can function in a diverse global society. The citywide standard of intervention and discipline also outlined a range of disciplinary and intervention measures to address misbehavior.

When a student violates one or more of the 63 infractions for grades 6-12, there are over 14 guidance interventions to support the needs of a student. Student behaviors are categorized by grade level (A-Kindergarten-Grade 5 and B-Grade 6-12), severity of the infraction by levels (1-5), and a list of possible interventions to support the needs of students (District Code of Discipline Handbook, 2011).

In the Fall of 2009, a memorandum to publicize the regulations and guidance for the New York State Education Department (NYSED) instructed the use of interventions programs. The intervention program guideline provided districts with important empirical decision making findings to support academic achievement, for all students, while minimizing disruptive behavior of New York State students (NYSED, 2009). One of the primary responsibilities for schools is to protect the health and safety of students. The outcome of this state mandate provided private schools, special act school district and State-operated schools approval to establish district code of conduct and discipline guidelines. The guideline met the requirements of the New York State Code of Rules and Regulations (8 NYCRR). It was required that each school's code of conduct and discipline and behavioral interventions be aligned with NYSED regulations that promoted the use of positive behavioral supports and interventions (NYSED, 2009).

Results from literature on Positive Behavior Interventions and Supports indicated school that established systems of positive behavioral supports and interventions have consistent learning environments. The structures of these environments are less reactive and maximize student achievement.

Zero tolerance. In 1994, Congress passed the Gun Free Schools Act in response to the increase of school shootings (Skiba & Raush, 2004). Building administrators are required to develop a zero tolerance policy to qualify for federal funding. This funding supports safe school endeavors. A zero tolerance policy requires strict enforcement of school regulations and policies. In the large metropolitan district that the research took place, behavioral regulations were integrated into the zero tolerance policy that was codified in the citywide standards of interventions and disciplinary handbook. The

disciplinary handbook provided a framework for administrators and deans to follow when student behavior violated school discipline policy. Enforcing strict discipline polices that support safe schools resulted in students being suspended for non-violent infractions (Heaviside, Rowand, Williams, & Farris, 1998). According to the zero-tolerance policy, strict interventions are imposed on students in possession of a weapon. As a result, students must receive a mandatory one-year suspension out of school. Furthermore, under the legislation guidelines of zero-tolerance, schools must report weapon violations to the criminal justice or juvenile delinquent system.

By 1994, 94% of schools in the United States of America implemented zero tolerance policies. The original federal legislature to handle weapon possession in schools resulted in an increased reliance on suspension and expulsion for minor disciplinary infractions (Krezmeir, Leone, & Achilles, 2006; Skiba & Raush, 2006). Research from the United States Department of Education indicated 3.3 million students were suspended at least once in the United States during the 2005-2006 school year (U.S. Department of Education, 2007). In the state of the co-located urban high schools studied, students served almost 450,000 suspensions from 1999 to 2009. Students suspended or expelled from school miss more than 2.2 million days of instructional opportunities (U.S. Department of Education, 2007). The percentage of students who have experienced suspension at least once in grades K through 12 has nearly doubled over the last four decades from 3.7% in 1974 to 6.8% percent in 1998 (Schiraldi & Zeidenberg, 2001).

Positive behavior interventions and supports. The National Association of School Psychologists (NASP) (2006) defined Positive Behavioral Interventions and Support (PBIS) as an empirically validated, function-based approach to eliminate

challenging behaviors and replace them with pro-social skills. The primary stage of the intervention is not target specific. During initial school-wide events, all constituents are informed of appropriate behaviors. Use of PBIS has decreased the need for more intrusive or aversive interventions (i.e. suspension or expulsion) and can lead to both systematic as well as individualized change. PBIS targets school wide and individual student needs. It does not focus exclusively on the student; rather, it includes changing environmental variables such as the physical setting, task demands, curriculum, instructional rigor and individualized reinforcement. Research indicated a successful process for intervention should integrate a wide range of behavioral contexts specific to the various behaviors addressed within the supports of tiered intervention. PBIS framework at the high school level blends behavioral sciences and empirically validated procedures to develop behavioral education plan. There is a relationship between academic failure and behavior problems (McIntosh, 2008; Roseser & Eccles, 2002). Implementation of PBIS at the secondary level of intervention is pivotal in addressing social behaviors and academic success of at-risk students (Turnbull, Edmonson, Griggs, Wickham, Sailor, &Freeman, 2003).

Statement of the Problem

There is a need to develop school-wide behavior interventions for co-located urban high schools. Current studies on positive behavior intervention exist primarily in the elementary, junior high, and middle school (Sugai & Horner, 2002). The issue addressed in this research is the gap in knowledge of behavior intervention models for co-located urban high schools.

The responsibility for school administrators to provide a safe school environment under the regulations of the Elementary and Secondary Education Act (ESEA) and Individual with Disability Act (IDEA, 2002) has been a daunting task. The percentage of discipline issues in public school has doubled since the 1970s (Advancement Project, 2000). Administrators' response to make schools safe has been to rely on stricter discipline regulations such as zero tolerance.

Forty-nine percent of students in schools that implement a zero tolerance policy have been suspended from school for a period of five days or more (Reyes, 2006). Students who violated the safety components of public schools' Code of Discipline eventually experience suspension or expulsion. Suspension and expulsion has denied numerous students their right to a free education (Netzel & Eber, 2003). Research indicated safe school environments can exist only when school-wide proactive strategies are evident in the discipline process (Skiba, 2009).

Theoretical Rationale

A theoretical perspective provides a means of looking at the world (Yin, 2003). It allows individuals to make assumptions about what is important and what functions in the world (Yin, 2003). In the area of research, a theoretical rationale guides the researcher when deciding what to include and exclude from the proposed study (Yin, 2003). The proposed theoretical rationale for this research is Sugai's (2002) theory of a three-tiered-model for behavior intervention. The PBIS model is a pyramid divided into three sections. The primary prevention tier, at the base of the pyramid, can meet 80%-95% of the entire school community problem behaviors. The second tier or the secondary prevention tier provides behavior strategies for groups of students with at-risk behaviors.

The secondary prevention tier identifies 15%-20% of the school community to receive specific behavioral interventions and supports. The last tier is the tertiary prevention tier. The tertiary prevention tier serves 5% of the school population with high-risk behaviors. At this level, students receive one to one interventions and supports to assist with developing acceptable social behaviors. This study explored behavioral theorists such as Maslow's Hierarchy of Human Needs and Glasser's Choice Theory to underpin Sugai's (2002) three-tiered theory on positive behavior intervention.

Significance of the Study

In 2009, the Elementary and Secondary Education Act (ESEA) reauthorized the No Child Left Behind Act (NCLB), which adopted zero tolerance policies that provided schools the opportunity to provide safer schools for students. As the result of zero tolerance policy in the public schools, an acceptable response to disciplinary issues became suspension or expulsion. Although research indicated that suspension in United State schools is an ineffective method to reduce disruptive behaviors, it has remained the preferred preventive strategy (Skiba, 2009). The Department of Education Code of Discipline Handbook (2011) framework was to inform disciplinarians of the basic laws that protect the rights of students as well as provide disciplinary actions for students who violate school safety regulations.

Research indicated safe school environments only exist when school-wide proactive strategies are evident in the discipline process (Skiba, 2009). This quantitative study examined the effect of PBIS on infractions, suspensions, school progress grade, and the school environment. Implementation of essential components of the PBIS program provides opportunities for participants to engage in decision-making activities that

highlight awareness of individual behavior. PBIS intervention strategies are research-based approaches that create a venue to reduce school referrals, suspensions, dropout rates, and increase of instructional time (Skiba, 2009). In addition, several PBIS studies indicated that when essential elements of PBIS programs are implemented there has been an improvement in attendance, school engagement, and academic achievement (Snyder & Sickmund, 2006). This study contributes to existing knowledge on PBIS at the high school level in particular.

Purpose of the Study

The purpose of this quantitative study was to explore enhance social outcomes of co-located high schools in a safe learning and teaching environment by examining the relationship between the implementation of PBIS on student infractions, suspensions, progress report grade, and the school environments in co-located urban high schools in New York State. This ex-post facto design informed building and district leaders, community based organizations, administrators, and parents of practical preventive interventions to reduce infractions and suspensions on co-located urban high schools. Knowing the success of intervention models from the elementary and middle school studies informed co-located urban high school district's and building administrators' decision to consider positive behavior intervention framework.

Research Questions

The following research questions and null hypotheses were developed to address the purpose of this study:

1. Is there a difference between number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in

co-located urban high schools in a large metropolitan district in New York State?

Null Hypothesis (H_{01}) There is no statistical significance in the number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

2. Is there a difference between the number of suspensions as measured by the New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H02): There is no statistical significance in the number of school suspensions, as measured by the New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

3. Is there a difference between the school progress grade as measured by the Department of Education Progress Report Overview and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H03): There is no statistical significance in the school progress grade as measured by the Department of Education Progress Report Overview, and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

4. Is there a difference between the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H04): There is no statistical significance in the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

Definition of Terms

The review of the literature in Chapter 2 and methodology in Chapter 3 forms the basis for the following definition of terms.

Co-located. Individual schools housed in a host building at one site.

Comprehensive education plan (CEP). The blueprint for describing the demographics of the school's population, implementation of instructional strategies, professional development opportunities, and parent involvement activities that promotes continuous school improvement.

Department of education progress report (DOEPR). The Department of Education Progress Report is a one-year snapshot of a school's performance. The Progress Report introduced growth in percentiles. The Progress Report has measured four categories of school's performance. The four categories were student year-to-year progress, student performance, school environment and closing achievement gap. Category (1) student year-to-year progress, Student Progress, included credit accumulation and represents 60% of the schools total score.

The school progress grade is based on growth percentile in Math and English. Category (2), student performance on states test in Math and English, represented 25% of the schools total score. Category (3), The School Environment, represents 15% of schools total score on the DOEPR. Components of the DOEPR are student attendance, school community survey, rating academic expectations, safety and respect, and communication and engagement.

Department of education progress report overview (DORPRO). Schools receive a letter progress report grade. The grade ranges is from "A" to "F". Each school's Progress Report measures student year-to-year progress, compares the school to peer schools, and acknowledges academic student growth, especially students with the greatest need.

Expulsion. A legal term that permits exclusion from a system. In most states, exclusion from school for more than 10 days has been considered an expulsion. Because New York's constitution guarantees the right to a free education, students cannot be lawfully expelled from school until maximum compulsory attendance age of 17. The majority of children ages seven to 14 are underage for exclusionary discipline in the district to be studied. Therefore, this population is ineligible for expulsion (New York Civil Liberties Union, 2007).

Gun free schools zone act of 1990. The Gun Free Schools Act was enacted on October 20, 1994. It is considered an amendment to the Elementary and Secondary Education Act of 1965 (ESEA), which was reauthorized by President Clinton under the title of the Improving America's Schools Act. This status makes it a federal crime to

possess a gun within 1,000 feet of any school—public, private, or parochial (Defined by federal law Section 921 of Title 18 of the U.S. code).

New York school report card (NYSSRC). Data report that has provided information to the public on the school's status under the state and federal accountability systems on student performance and on other measures of school and district performance. Knowledge gained from the school report card on a school's strengths and weaknesses can be used to improve instruction and services to students. State assessments were designed to help ensure that all students reach high learning standards. They have been intended to show whether students are getting the knowledge and skills needed to succeed at the elementary, middle, and commencement levels and beyond. The state has required that students not making appropriate progress toward the standards receive academic intervention services.

Positive behavior interventions and supports (PBIS). Empirically validated function-based approach to eliminate challenging behaviors and replace them with pro-social skills. (American Psychological Association, 2008).

Principal suspension. In the co-located urban high schools studied, students may serve a principal suspension at the school or assigned to an alternative education site. There is no formal hearing to determine the child's guilt or innocence, but the student and parent may attend an informal suspension conference at the school to discuss the justification for the suspension. Students have the right to appeal a principal's suspension. With far less administrative burden than long-term suspensions, short-term suspensions have accounted for the majority of exclusionary discipline in the co-located urban high schools. Most were in-school suspensions (New York Civil Liberties Union, 2007).

New York state accountability and overview report (AOR*)*. Data report provided enrollments, average class size, demographic factors, attendance and suspensions, teacher qualifications, and staff counts. It also has provided accountability results by accountability measure and performance on accountability measures. Accountability measures at the secondary level, is English Language Arts, mathematics, and graduation rate (New York State Progress Report, 2010).

Progress report card. Progress Reports grade each school with an A, B, C, D, or F and are based on student progress (60%), student performance (25%), and school environment (15%). Scores are based on comparing results from one school to a peer group of up to 40 schools with the most similar student population and to all schools citywide.

Response to intervention (RtI). A process schools have used to determine instructional support for academically challenged students. In the RtI process, students receive additional instructional support aligned with student's individual needs through a multi-tier instructional model. Each level is known as a tier, and each tier provides instruction with gradual levels of supports in smaller group during instructional time in specific areas (National Center on Response to Intervention, December 2007).

Safe school. A learning environment where there is respect and is void of disruptions, drugs, violence and weapons (NCDPI, 2006a).

School bonding. Captures the connections students experience at their school, the extent to which they feel cared for and respected by their teachers and attached to their school, their level of participation and involvement in their school, and their commitment

to the values and beliefs of the school (Battistich, Schaps, & Wilson, 2004; Catalano & Hawkins, 1996; Maddox & Prinz, 2003).

School-wide positive behavior interventions and supports (SWPBIS). An intervention designed to improve school climate using system-wide positive behavioral interventions. The interventions have included positively stated purpose and clear expectations supported by specific rules and procedures that encourage cohesiveness and discourage violations of expectations (Lewis & Sugai, 1999).

Superintendent suspension. In the co-located urban high schools to be studied, suspension lasts up to 25 days. These suspensions, from six days up to one year, have been known as "superintendent's" suspensions because only the superintendent can assign them based on the recommendation of the school and the evidence presented at the hearing. Students attend alternative education sites while suspended (New York Civil Liberties Union, 2007).

The discipline code. Generally, a suspension has been among several permissible responses to misbehavior as outlined in the Citywide Standards of Discipline and Interventions, also known as the Discipline Code, including a series of optional guidance interventions and supports. The Discipline Code applies to behavior that occurs in school, while on school property, while traveling on vehicles funded by the Department of Education, at all school-sponsored events, and even off school property when the behavior negatively effects the educational process or endangers "the health, safety, morals, or welfare of the school community." (NYDOE Code of Discipline, 2012, p.13). There has been a range of disciplinary responses available to teachers and administrators for each infraction in the code (New York Civil Liberties Union, 2007).

School violence index (SVI). A ratio of violent incidents to enrollment in a school and determined by the number of incidents, the seriousness of the incidents, and the school's enrollment (School Safety and Accountability, NYSED, 2008).

Violent and disruptive incident report (VADIR). Data on infractions that describe violent and disruptive incidents in schools. Information is provided to comply with state and federal reporting requirements to identify schools as persistently dangerous, as required by the No Child Left Behind Act of 2001 (NYSED, 2008).

Summary of Remaining Chapters

This chapter examined issues that effect school environment and disciplinary strategies on co-located high schools. Disciplinary strategies under zero tolerance policy resulted in increased student suspensions and or expulsions for the more severe infractions. In addition, suspension data after implementation of zero tolerance policies indicated a disproportionate representation of minority students. These results indicated the need for an intervention program that provides opportunity for collaboration between teachers and students to engage in decision-making activities that empowers participants to take ownership of their behavior. This study explored the enhanced social outcome of co-located high schools in a safe learning and teaching environment by examining the relationships between number of suspensions, school progress grade, number of infractions and the school environment. As measured by the New York State School Report Card (NYSSRC), Department of Education Progress Report and Progress Report Overview, Accountability and Overview Report (AAOR) and New York State VADIR report. In addition, measures by the Department of Education Progress Report and implementation of behavior intervention models on co-located urban high schools.

The review of literature (Chapter 2) focuses on the rationale for the framework of tier-models for behavior interventions and disparities in current disciplinary strategies and disciplinary actions for infractions as outlined in the district in this study Behavior Code of Discipline Handbook (2011). In addition, Chapter 2 examines the safety and respect component of the school environments survey and essential elements of PBIS. Chapter 3: Methodology, presents detailed methodology for the study. The chapter contains research questions and a research design to describe the relationship between variables. In addition, a sample of the intended population and overall school progress grade are identified. Chapter 4: Results includes data analysis, and Chapter 5: Discussion considers the implications of the results for future research and policy development. Limitations of the study are also discussed.

Chapter 2: Review of the Literature

Introduction and Purpose

In the educational community, the perception of belonging to a school that is safe and nurturing directly defines students' academic performance and behavior. Safe schools are considered schools with values, beliefs, and acceptable social behaviors that underpin interpersonal and inter-group respect (Office of School and Youth Development, 2011). When these essentials are evident, students experience both academic and social growth within the school environment. Chapter 3: Review of the Literature examines the federal government, Elementary and Secondary Education Act, and administrators' response to safe schools.

The research literature indicated suspension as one method implemented by school administrators to maintain a safe school environment. The practice of suspensions is to decrease violence, discourage drug abuse and remediate criminal activities on campus (American Bar Association, 2001). Students who experience suspension are often from a socioeconomic deficient household without supervision (United States Census, 2000). Studies by the Center for Disease Control and Prevention (2007) stated youths not in school are more likely to become involved in physical altercations and carry weapons. Increased reliance on exclusionary punishment such as suspensions effectively denies numerous students their right to a free education (Student Safety Coalition, 2008). According to Skiba's and Rausch's (2004) study on the relationship between suspension

rates and low-test scores on state accountability test indicated high suspension rate is second to high poverty rates.

Researchers contended that behavior is complex and misbehavior can be the result of any number of factors. Likewise, factors such as learning disabilities, life circumstances, family issues, or mental issues contribute to student behavior (Daniel & Bondy, 2007). School policy guidelines that implement zero tolerance policy do not permit leniency for behaviors that violate school behavior codes (Dodge, 2005).

Forty-nine percent of students in schools disciplined under a zero tolerance policy were given suspension for a period of five days or more. This is considered a principal's suspension. Principles of zero tolerance policy are a fabric of public schools grades K-12 (Reyes, 2006). Under the auspices of zero tolerance policy, schools are authorized to enforce stricter discipline rules and regulations. Students who violate the safety components of public schools' Code of Discipline eventually experience suspension or expulsion. These students lose valuable instruction time as a result of suspensions and the absence of adult supervision. Research indicated suspended students lacking positive social interaction with peers adapt delinquent behavior patterns (Sughrue, 2003)

The American Psychological Association (APA) (1993) suggested that zero tolerance policy offers disciplinary actions that reprimand students more severely than warranted. School administrators and principal designees approach to discipline differ in the disciplinary outcome (Kim, Losen, & Hewitt, 2010). A study by Opportunities Suspended, Advancement Project and the University of California Los Angeles Civil Rights Project (2002) examined building principal use of exclusionary discipline.

Findings indicated a direct proportion of principal support underpins zero tolerance disciplinary practices (Kim et al., 2010).

The dissertation study examined the relationship of behavior intervention models that support sustainable evidence-based practices that influence school environment and student behavior. The study examined PBIS as a behavioral framework that reduces student infractions and suspensions and provides a safe school environment for co-located urban high schools.

Topic Analysis

The literature review examined journal articles, dissertations, and reports pertinent to research topic along with disciplinary regulations suspension practices, and components used to evaluate school environment, student performance in math and English language arts, and graduation rates. For the purpose of this study, only the safety and respect component of the school environment survey for co-located urban high schools was explored. Furthermore, the review of literature included the effect of PBIS framework for interventions that reduce school infractions and suspensions.

Indicator of school crimes and safety. Harvard University and Advancement Projects - Opportunities Suspended (2000) detailed the consequences of zero tolerance and school discipline. This project collaborated with the Civil Rights Project (CRP) at Harvard University on multidisciplinary subject matter that affects students. In addition, the project identified unfair practices of zero tolerance that are counterproductive to the developmental needs of students. Furthermore, zero tolerance policies deny students of educational opportunities that eventually end in criminalization of students.

Results from a collaborative project between Harvard University and Advancement Project (2000) on suspensions and expulsion indicated students with a series of infractions result in suspension, expulsion, and arrest. School suspension is a common disciplinary action for student behavior that violates school policy. Research indicated 3.3 million students are suspended annually in the United States (U.S. Department of Education, 2007). An example of the severity of the issue can be seen in New York City. The Associated Press (2012) reported that 73,441 New York City students experienced suspension during the 2010-2011 school year (2012). Further review of preliminary referrals to the Office of Schools Referrals (OORS, 2010) indicated that approximately 31 altercations and 17 arrests occurred during the 2010 fall semester at a co-located urban high school in New York State. The issue of safe schools is not limited to schools in the United States. Schools throughout the nation with large diverse populations, for example, Ontario, California, Connecticut, Chicago, and Texas, also experienced violence in schools. An Ontario Report on Roots of Youth Violence (2010) argued that the presence of school policing as a deterrent to crime and violence is not enough. However, police programs have some influence on a student's impulsiveness to commit a crime on school grounds (2010). Student behavior throughout the nation continues to be a growing concern for administrators, teachers, parents, and communities (Landen, 1992; Sautter 1995).

According to a Safe School and Safety Report (2011) there are 11 incident categories to measure persistently dangerous schools (see Appendix A for Criteria for designating persistently dangerous schools). Criteria for designating persistently dangerous schools are outlined in the following categories: homicide, forcible sex

offense, assault with serious physical injury, reckless endangerment, arson, robbery, kidnapping, all other incident categories involving the use of a weapon.

Socioeconomics. Skiba et al.'s (2002) study of socioeconomic levels and family dynamics revealed limited analysis of family income as a variable in student suspensions. Indicators from the literature however, considered low-income household as a reasonable explanation for student misbehavior and suspension. Likewise, additional data on poverty rates from school district data supported the implications of poverty as a factor in suspensions (APA 2008; Skiba et al., 2002; Wallace et al., 2009).

Urban schools share several unique physical and demographic characteristics that distinguish them from suburban and rural school districts. Urban school districts operate in densely populated areas serving significantly more students. In comparison to suburban and rural districts, urban school districts are often composed of higher concentrations of poverty, substantial racial and ethnic diversity, larger immigrant populations, and linguistic diversity. In addition, urban schools experience attendance issues as the result of high student mobility (Maddox & Prinz, 2003).

Markey, Markey, Quant, Sanlelli and Turnbull (2002), case study on urban environments described life within these communities as very different experiences. These experiences affect student's quality of life. Aspects like poverty issues, race, diverse languages and cultures within densely populated communities is the essence of urban environments with limited resources (Warren eta al., 2003). Students from urban communities confront danger walking to school are preoccupied with safety rather than being ready to learn.

Administrators search for programs, such as Response to Intervention (RtI) to address the academic and behavior needs of students. The RtI model is inclusive of social-demographic challenges that encompass the perspective of social and economic inequities (see Appendix B for a description of RtI intervention). Knowledge of issues that affect diverse populations is crucial to the effectiveness of intervention (Skiba, 2004).

General perspective. The United States Department of Education has been aware of the numerous discipline infractions that influence the safety of public schools (2004). Consequently, one solution to address discipline issues in urban schools has been through suspension or expulsion. Since 1970, the number of suspensions and expulsions nationwide has doubled for both aggressive and non-violent behaviors (U.S. Department of Education, 2004). According to the 2006 Census of Juveniles in Residential Placement, an estimated 92,854 students were contained in juvenile facilities. Additionally, a census report from 2009 indicated that 92.9% of prisoners in the United States were African American males. The United States has had the highest documentation of incarceration in the world. Moreover, the practices and regulations used to address the behaviors of non-violent and low level behavioral infractions have been followed within the public school system of the metropolitan region examined by this dissertation study. Disciplinary practices reflect social controlling practices outlined in the United States Federal Drug Enforcement Policy-Zero Tolerance from the early 1980's (McNeely, Nonnemaker, & Blum, 2002; Resnick, 1997).

Urban high school suspensions. The Gun-Free Schools Act of 1994 (GFSA, Public Law No. 103-882) provided a protocol for suspension and expulsion. As a result

of the Gun-Free Act of 1994, a student in possession of a weapon on school grounds experiences suspension or expulsion for a period of less than one year. According to the Gun-Free Act, whenever a public institution incurs a threat to student safety and the safety of its constituents, the alleged perpetrators should be punished to the letter of the law. However, studies by the Juvenile Justice Department on patterns of suspension indicated that assault is not a key reason for suspension or expulsion (Juvenile Crime, 1995). For example, 3.1 million students who experienced suspension in 1997 were engaged in acts that were neither nonviolent nor noncriminal. Only 10% of students who experienced expulsions or suspensions had possession of a weapon (Juvenile Crime, 1995). The logistics of National Crime Prevention Programs and GFSA was to support schools in the development of safer schools.

A 2008-2009 harassment incident report from a large metropolitan district in the northeastern United States revealed that 130,827 incidents occurred on school grounds. Infractions were indicated by the progressive levels of severity. The report findings were divided as follows: 6,207 bias-related incidents—of these incidents, behavioral recorded incidents were in the 4.7% range. At the Level 4 category, 55% of the reported incidents were for sexually suggestive comments, innuendos, propositions or similar remarks or for participating in gestures that were sexual in nature. Bully behavior accounted for 12.7% of recorded incidents at this level. Ultimately, zero tolerance policy became a model within public schools grades K-12 (Reyes, 2006). Under the auspices of zero tolerance policy administrators were permitted to enforce stricter school wide rules and regulations. Students who violated the safety and integrity of public schools faced disciplinary actions of suspension or expulsion.

Description of infractions associated with student behaviors outlined in the discipline code book increased to 49% between 2001 and 2010. Hundreds of thousands of suspensions of African American students account for one-third of student population (American Bar Association. (2001). Furthermore, The number of zero tolerance infractions increased under zero tolerance suspensions to 200% (American Bar Association. (2001).

School discipline reform. Results from the Test, Punish, and Push-out study (Advancement Project, 2010) indicated the number of out-of-school suspensions quadrupled over a year in Chicago. Between 2001 and 2007 the estimated number of suspensions was 93,212. Similarly, in the Texas school system the number of students pushed out of school for their behavior and placed in alternative academic settings in 2007 was approximately 128,000. Likewise, the number of school-based arrests in Pennsylvania nearly tripled between 1999 and 2006 to 12,918 (Advancement Project, 2009).

School policing began in Flint, Michigan in1950. The original title of school officers was school resource officers. The purpose of school resource officers was to improve the relationship between the police and local youths. In the past four decades, training of school resource officers was provided by the state. As cultural shifts in the criminalization of student behavior became apparent in public schools, the roles and responsibilities of school resource officers evolved from mentoring and nurturing to arresting and implementing disciplinary actions. In addition to a new civil service status came a title change. The title change of school resource officers to school safety officers (SSAs) shifted accountability from the board of education to the police department. In the

late 1990s, SSA's role and responsibilities to keep schools safe and orderly for learning was achieved through the theory of aggressively policing minor offenses (Skiba & Rausch, 2004).

Policing of a large metropolitan school region, the subject of this dissertation study, has increased by 65% since 2002. An estimated $221million dollars was poured into the public school district examined in this study to ensure school safety. In 2008, more than 5000 school safety officers (SSAs) were employed by the police department in the region studied to patrol public schools (New York Civil Union, 2007). In the school district studied, over 93,000 children, predominantly of diverse ethnicity, have to pass through security stations with metal detectors, and are subjected to bag-searches and pat-downs by police personnel before getting to class. These precautionary procedures have been deemed necessary to keep the schools safe and void of weapons and illegal drugs. Overall, public school for urban students has been uninviting; resembling prison-like structures and void of adult connectedness (NCES, 2007). In order to understand the efforts taken to make schools safe there is a need to understand regulations that effect a school's environment.

History of zero tolerance. The term zero tolerance came from the United States Federal Drug Enforcement policies implemented in the early 1980s. The policy was first enforced by the United States Navy and later adopted by the United States Customs Service. The jurisdiction of the zero tolerance policy empowered customs agents to "seize the boats, automobiles and passports of anyone crossing the border with traces of drugs" (Kajs, 2006, p.16). These individuals were eventually charged in Federal Court for their violation.

The flexibility of the term zero tolerance later encompassed diverse issues such as environmental pollution, trespassing, skateboarding, racial intolerance, homelessness, sexual harassment and boom boxes (Kajs, 2006). In the late 1980s, the controversial federal zero tolerance policy created for the military was phased-out. However, in the next decade, the residue of the zero tolerance policy philosophy found its way into the educational community.

Violent adolescent school shootings in Giles County, Tennessee in November 1997, Missouri in March 1987, and San Diego, California, in January 1979 disturbed the sense of safety at local school campuses. After the incidents, zero tolerance policies were revisited and linked to a National Crime Prevention Program in the United States to include the removal of weapons on school property in accordance with the guidelines of the Gun Free School Zones Act (GFSA) (1990), which prohibits firearms within 1,000 feet of school property.

The American Academy of Pediatrics (2003) indicated that school officials implement suspensions or expulsions to reduce school violence on school grounds. To this end, suspension or expulsion has been inclusive of acts of truancy that impact urban students' academic achievement. In America, 90% of schools administrators favor zero tolerance policy practices (Rose, 1988). To date, 94% of schools have policies known as zero tolerance. As a result, 49% of students in schools that implemented zero tolerance practices incurred an out-of-school suspension for up to five days or more. In addition, 31% of expelled students and 20% of suspended students eventually were transferred to an alternate school for the duration of the suspension (University of California Los Angeles, Center for Mental Health in Schools, 2004). Moreover, suspension is an

acceptable disciplinary practice in 78% of American large urban school districts (Survey of Discipline Codes in Large City School Districts, 1995). However, in 2001, the American Bar Association (ABA) argued that a one-punishment-fits-all approach is inequitable. Henceforth, the ABA supported the discontinuance of zero tolerance practices based on the potential safety, physical, and mental health concerns associated with suspension and expulsion (2002).

United States Department of Education's Office of Civil Rights (OCR) indicated 3.2 million students were annually suspended. Accordingly, an estimated 100,000 school-age students in the United States were expelled. The percentage of discipline issues in public school has doubled since the 1970s. Discipline trends from the Advancement Project from 2001 to 2007 indicated a relationship between discipline and suspension.

Henault (2003) noted that the Harvard University (2000) civil rights project in collaboration with the Advancement Project titled "Opportunities Suspended" unearthed the disparity and unfair practices of zero tolerance policies. The Harvard study concluded minority students were disciplined for minor offenses such as defiance of authority or disrespect of authority.

Effectiveness of zero tolerance policies. Zero tolerance has been a part of safety procedures for almost two decades. The implication of zero tolerance policies on students for non-violent misbehaviors has amplified the harsh disciplinary actions such as of student removal and possible lengthy school suspensions (APA, 2008). Zero tolerance policies have been criticized for having detrimental effect upon student self-esteem. Research suggested that minorities, at risk students, and special education students are disproportionately affected by zero tolerance policies.

According to Daniel and Bondy (2008), American studies found zero tolerance policies negatively affected student emotional health, graduation rates, and life chances. The study further examined how zero tolerance policies violated the civil right of students to a free and quality education. Furthermore, Daniel and Bondy (2008) indicated that high racial discrimination against diverse ethnic students for minor infractions increased the number of student referrals for removal under zero tolerance policies. A literature review indicated a disproportionate minority representation of students in receipt of exclusionary and punitive disciplinary practices (Skiba & Peterson, 1998). The corporal punishment and expulsion practices presented harsh disciplinary actions toward minority groups. Schools identified as having strong reliance on suspension and expulsion showed the highest rates of minority overrepresentation in school disciplinary consequences (Skiba & Peterson, 1998).

Stader (2004) conducted a study of zero tolerance impact on African American and Latino students in Austin, Texas. The population consisted of 18% African American, 43% Latino and 37% White students. The African American students accounted for 36% of suspensions and expulsions, Latino students for 45%, and White student for 18% (Stader, 2004). The research further examined relationships between ethnicity and zero tolerance throughout other parts of the United States and found zero tolerance led to minorities being statistically over represented in school expulsion.

Fairness of zero tolerance. According to Sughrue (2003), there are disparities amongst the racial and gender lines for African American males and females. Sughrue (2003) conducted a comparable statistical study that showed racial disparity in the United States. In this study, white students consisted of 63% of enrollment and only 50% of

suspensions and expulsions. African American students had a 17% enrollment and accounted for 32% of suspensions and expulsions.

The literature further showed that there has been a disproportionate minority representation of students in receipt of exclusionary and punitive discipline practices (Skiba & Peterson, 1998). The corporal punishment and expulsion practices appeared to show a relationship between harsh disciplinary actions and minority groups. Schools identified as having strong reliance on suspensions and expulsions were those that showed the highest rates of minority overrepresentation in school disciplinary practices (Skiba & Peterson, 1998). In addition, the study indicated that Latino males and African American females were suspended from schools at a much lower rate than African American males. Casella (2003) cited Harvard University's *Opportunities Suspended* study that concluded that minority students were disciplined more frequently "for offenses like defiance of authority and disrespect of authority" (Casella, 2003, p. 872). Casella's article further discussed how subjective offenses were and how race and biases took an integral role in student discipline. A study by Cassidy (2005) indicated zero tolerance policy failed to recognize that factors such as social constructs and learning environments might contribute to behavioral problems and student misbehaviors.

Researchers maintained that social problems, in addition to socioeconomic, psychological, and behavioral needs are at the root of school violence. Daniel and Bondy's (2008) study concluded that zero tolerance does not serve as a deterrent to behaviors, as many proponents thought. Many students have multiple suspensions as the result of zero tolerance edicts that directly influence the school environment. One result

of zero tolerance policy has been an increase of infractions and suspensions that contribute to high recidivism rates (Skiba & Knesting, 2001).

The role of administration and zero tolerance. The American Bar Association (2001) argued that the zero tolerance policy might punish adolescents more severely than warranted. The organization suggested alternatives to suspensions to make schools safer (2001). Recommendations included allowing administrators more flexibility when addressing discipline rather than relying upon zero tolerance policy. This report indicated implementation of zero tolerance policy should be used for more serious infractions that affect a safe school environment. A case study conducted by Kajs (2006) identified eight factors administrators should consider when planning for alternatives to zero tolerance policy. These eight factors included (a) age, (b) grade, (c) gender, (d) special education program, (e) seriousness of the offense, (f) circumstances involving the incident, (g) individual history of offenses, (h) attitude and social–emotional development levels as well as resiliency level of student involvement in school life.

Understanding positive behavioral interventions and support. Positive Behavior Interventions and Supports (PBIS) apply research-based behavioral systems methods to underpin safe school initiatives that provide learning environments conducive to teaching and learning (Turnbull et al., 2003). The principles needed to create and sustain effective functional environments occur in three phases: school-wide for the entire school community (primary), in the classroom for target behaviors and expectations (secondary), and individual interventions for high-risk students (tertiary). The framework of PBIS incorporates four elements to sustain effective interventions (Horner, Sugai, Todd, & Lewis-Palmer, 2005). The four key elements of PBIS,

outcomes, practices, data, and systems, sustain effective behavior interventions (Turnbull et al., 2003). Creating a hierarchy of consequences establishes procedures that show a relationship to behavior (Turnbull et al., 2003).

PBIS implementation and high school. Implementation of Positive Behavior Interventions and Supports has evolved since 1997. in more than 10,000 schools in forty states. A national high school forum held by Technical Assistance Center (TA Center) in May of 2004, on implementation of PBIS on a school-wide level in high schools. Twenty nine high schools from 10 states share their experiences, practices, challenges, and accomplishments implementing PBIS (Bohanon, Edmonson, Flannery, Eber, & Sugai, 2004). The TA Center, for PBIS was established by the Office of Special Education Progress and United States Department of Education. The purpose of the TA Center provided schools capacity to inform, communicate, and identify technical supports needed to sustain effective proactive disciplinary practices in high schools. The TA Center has 19 partners across the United States directed by George Sugai from the University of Connecticut and Robert Horner from the University of Oregon.

The purpose of the high school PBIS reform was to discuss the implementation and sustainability of PBIS on a school-wide level. Specific objectives addressed by the reform are (a) characteristics of successful practices that impacts high schools (b) develop overviews of empirical descriptions of fidelity and outcomes unique to high schools, and (c) identification of research and policies that provide experiences that support movement to the next action level. Emerging themes from literature on the implementation of PBIS at the high schools levels is feasible. However, features of PBIS frameworks need adjustment to meet the academic and disciplinary objectives of specific high schools.

Purpose of PBIS. Behavior that disrupts classroom instruction has been one of the most common reasons educators request removal of a student from the classroom environment. Students with extreme disruptive behavior have represented 20% of school enrollment and have accounted for more than 50% of behavioral incidents on school grounds (Turnbull et al., 2003). Punitive responses towards students who violate behavior codes of discipline do not improve school environment. Under the Individual Education Act (IDEA) (2002), students with challenging behaviors should not be excluded for school. A longitudinal three-year study on suspension indicated 70% of students excluded from school entered the juvenile justice system (Turnbull et al., 2003).

Implementation of PBIS. According to Sugai (2002) and the National Association of School Psychologists (2006), the premise of PBIS is grounded in behavioral theory. The PBIS framework has focused on contexts and outcomes of student behavior. Through implementation of research-based, strategies and identified behaviors can change desired functional behaviors. The PBIS design has provided ongoing evaluation, assessment, reassessing, and monitoring of individual students to match support to student needs. PBIS should be a collaborative endeavor that involves parents, school psychologist, teacher, counselors, and administrators.

The benefits of PBIS. The design of PBIS is inclusive of all diverse student populations. Fifteen years of research showed that PBIS has been effective in sustaining and maintaining positive behavior in students and school environments (Sugai & Horner, 2006). The outcome of positive behaviors and school environment influences the perception of a safe school environment. The research also indicated the impact of PBIS on student engagement and academic performance. Long-term implementation of PBIS

could lead to improved lifestyle and functional communication skills. Theories on human behavior provided further insight into the challenges and need for building sustainable habits in students (Turnbull et al., 2003).

Leadership and PBIS. Building administrators in the United States explored disciplinary frameworks such as Positive Behavior Support (PBS), also known as Positive Behavior Interventions and Supports (PBIS), as a proactive response to creating a safe school environment. PBIS framework is composed of a range of research based behavioral strategies for groups and individual students that promote acceptable social behaviors. The strategies are unique for the needs identified by schools. Each school team collaborates on behavioral expectations to be practiced during instructional settings and non-instructional settings. This approach to safe school reform was implemented in 39 states and more than 5,300 schools (Allen-Meares, 2004; Germain, 2002). According to Sugai and Horner (2002), the conceptual components of PBIS on a school wide level includes the following elements: (a) outcomes (academic and social competencies) that are evaluated by key stakeholders, (b) empirically validated practices for achieving desired outcomes, and (c) implementation of data based decision making.

Using theories to change and guide organizational endeavors has been a challenge for building leaders for decades. According to Evans (2010), principals and district leaders prefer individualistic approaches to change rather than system-wide strategies based on common needs (2010). According to Spillane (2000), most school initiatives have been unsuccessful because the facilitators of the initiative lacked knowledge or skills about the purpose of the initiative.

PBIS provides ongoing support through internal and external coaches including training for key staff members. There are four key elements of PBIS that supports the effectiveness of the framework. First, outcomes measure students' academic and behavior targets that are endorsed and supported by students, families and educators. Next, established practices, such as interventions and strategies are evidence based. Third, data is used to inform the need for change and develop the procedure to implement interventions. Lastly, the systems identify the supports needed to enable the accurate and durable practices reflective of PBIS (PBIS, 2010).

Research on PBIS. For over two decades, 16,000 schools across the United States have implemented a positive behavior intervention model (Sugai & Horner, 2002). Luiselli, Putnam, Handler, and Feinberg (2005) conducted a case study on school-wide positive behavior support at an elementary school in the Midwest region of the United States. There were 666 participants during the first year of the study. Over the next two years, the participants decreased to 550 students. This study tracked and measured Office of Discipline Referrals (ODRs), suspensions, and academic performance (Metropolitan Achievement Test, 2007). The MAT measures critical skills that relate to reading comprehension and mathematics (p.186). The first year of implementing positive behavior, interventions unearthed a revised policy handbook. Revisions to the policy handbook included response time to ODRs and suspensions in a timely manner. Teachers and administrators were trained how to identify and reinforce appropriate behaviors using 'Caught in the Act' (CIA) slips. Students would earn CIA slips from staff for noted appropriate behaviors. Results of the three-year study indicated student discipline problems decreased and academic performance improved at the elementary school level.

Warren et al. (2006) conducted a case study on school wide positive behavior interventions and support model that focused on teaching behavioral expectations, rewarding appropriate behaviors, and integrating preventative student supports. The study included 737 participants in grades six to eight in a mid-western city. School demographics indicated 80% of the student population was eligible for free lunch. One year after implementation of the positive behavior supports initiative, 42% of the school population received a minimum of five ODRs and 81% of the student population received a minimum of one ODR.

During year two of the positive interventions support initiative, researchers participated in school activities, established rapport with staff, and developed specific procedures to meet the needs of the school. Once a rapport was developed, teachers recognized the benefit of using positive behavior supports. Administrators discussed expansion efforts of the initiative to a school wide approach. Extensive training for staff and administrators consisted of frameworks for lesson plans to teach behavioral expectations to the entire school population. The study examined office referrals, in-school conferences, student time-outs, in-school suspensions, short-term suspensions, and out-of-school placement. Elements of training included direct modeling and research based practices of behavioral expectations in different school settings. Additionally, researchers provided individual training specific to classroom management for challenging student behaviors.

Results from the case study indicated a decrease in the number of ODRs by 20% during year one and two of the study. Furthermore, student time-outs decreased by 23%, in-school conferences decreased by 17%, in-school suspensions decreased by 5%, short-

term (1-5 days) suspensions decreased by 57%, and out-of-school placement referrals remained unaffected.

In a three-year case study, primary gains used to track disciplinary procedures were not consistent. Factors such as zero tolerance policy increased punishments for certain behavioral infractions without remediation from administrative efforts. Less reinforcement of sustainability in student behaviors through positive behavior, referrals were factors that circumvented the case study findings (Warren et al., 2003). The implication of the case study indicated that a school wide positive behavior supports approach can be effective in urban, inner city schools that are confronted with behavioral problems. In addition, objective lessons were used to reframe teachers' perception of their own behavior and their students (Haley, 1973; Knight, 1998).

Bohanon, Fenning, Carney, and Minnis-Kim (2006) conducted a school wide positive behavior supports case study that used the school-wide blueprint and self-assessment developed by the office of Special Education Programs (OSEP, 2002). Bohanon et al.'s study included more than 438,500 participants and 602 buildings in the Chicago Public schools. The Chicago school system is the third largest school district in the United States. Implementation of the positive behavior and supports at the high school level was conducted from 2001 to 2002. The culturally diverse population included approximately 1,800 students. Initial data collection indicated a majority of students (89%) met the criteria for free or reduce lunch. Overall, daily attendance was 86%, the dropout rate was 19%, student mobility was 30%, and special education services were provided for 20% of the school population. The quantitative case study measured process and outcomes. The process measured the Schoolwide Evaluation Tool

(SET) and the Effective Behavior Supports (EBS) Survey. The outcome data included office disciplinary referrals (ODRs) and climate survey data. The SET measured treatment integrity of school wide positive behavior support implementation and was conducted five months after three years of full school wide implementation. The EBS Survey determined the level of implementation and priority for change across four identified domains: school wide, classroom, hallways, and individual supports (Sugai, Horner, & Todd, 2000).

The total number of ODRs during year two of the study was 5,215. Year three of the study indicated a drop on referrals to 4,339. Reductions in ODRs were evident in seven of the ten months of implementation. Changes in student behaviors between year two and year three indicated that 46% of students had 0 to 1 ODRs. During year three, ODRs surged to 59%. During year two, 25% of students had 2 to 5 ODRs. At the conclusion of this study, 21% of students in year two and 16% of students in year three had two to five ODRs. To determine whether a change in proportions was greater than expected alone, a cross-tabulation statistic was conducted. A two-tailed Pearson's chi square indicated that changes in proportion were more than would be expected by chance.

Urban considerations and PBIS. Issues related to PBIS and urban environments indicated three features unique to the implementation of PBIS framework (Journal of PBIS, 2004). Urban environment factors such as the quality of life (Markey, Markey, Quant, Santelli & Turnbull, 2002), implementation factors (Netzel & Eber, 2003) and behavior outcomes (Warren et. al., 2003). Netzel and Eber (2003) case study described urban school districts of having a unique challenge of meeting all of their students needs due to large student population, high poverty rates, diverse communities, and limited

resources. In addition to the limited resources, there are concerns about efficient strategies to support disciplinary initiatives based on data management (Bill & Melinda Gates Foundation, 2003). This study stated additional resources are required to sustain comprehensive school-wide reform initiatives (Warren, et al, 2203). In addition, resources are needed to guide building level issues of accountability under the mandates of the 2002 No Child Left Behind Act. Henceforth, a high percentage of students in urban schools require secondary and tertiary support to meet academic and behavior expectations (Turnbull et.al, 2002, Warren, et.al, 2003). Furthermore, Netzel and Eber (2003) study indicates two factor that challenge the implementation of PBIS framework in high schools. Factors such as risk behaviors associated with adolescents at the high school level and the accountability pressure to perform on high-stakes tests that assess academic performance levels.

These different facts indicate decision-makers should modify PBIS framework at the high school level to meet specific behavior criteria. In addition, modifications to the implementation of PBIS in urban environments should evaluate the framework effectiveness and sustainability.

Long-term evaluation on the sustainability of PBIS efforts urban environments consist of structural concerns and high student enrollment. High schools are usually large edifices with high student enrollment. Coupled with high student population are impersonal institutions students are not encouraged to participate in school-wide initiatives (Bill & Melinda Gates Foundation, 2003).

Theoretical orientation. Three general theories informed the dissertation research: Sugai's theory on behavior intervention, and Maslow's and Glasser's, theories support the purpose of positive behavior interventions and supports in co-located schools.

Sugai's three-tier positive behavior model. Sugai and Horner (2000) were the first to incorporate components of positive behavior supports on a school-wide level to change how behavior is addressed in the school environment (Colvin, Sugai, & Kameenui, 1994; Horner & Sugai, 2000). Sugai, Horner, and colleagues from the University of Oregon introduced positive behavior interventions and supports to include the entire school population in the process for addressing behavior (Colvin, 1991; Colvin, Sugai, & Kameenui, 1994; Lewis & Sugai, 1999).

There are four essential components of a school-wide positive behavior support system. First, the school needs to select team members for the behavior support. A team composed of school staff, administrator, parents, and other stakeholders is established to drive the planning process. The purpose of the team is to develop specific research-based procedures described in positive behavior supports. Henceforth, the team needs to establish regular planning meetings and communication procedures to identify the needs of the school. Next, the school-wide behavioral rules or expectations need to be clearly outlined and defined by the school. These expectations help the school operationalize the school's mission statement and therefore articulate behaviors that are acceptable and those that are not. In addition, appropriate behavioral expectations need to be introduced and taught to students (Colvin, 1991; Colvin, Sugai, & Kameenui, 1994; Lewis & Sugai, 1999). Articulating clear behavioral rules and expectations can support the effectiveness of behavioral expectations. After prior components have been taught and instituted, the

effectiveness of the systems is assessed (see Appendix C for Sugai's three-tiered intervention model).

The positive behavior interventions and supports process requires acknowledging appropriate behaviors and discouraging inappropriate behaviors using systems established by the school (Lewis & Sugai, 1999). The effectiveness of the program is subject to constant evaluation and monitoring (Colvin, 1991; Colvin, Sugai, & Kameenui, 1994; Lewis & Sugai, 1999). The procedure consists of the use of data to inform and guide interventions. The school may examine pre and post discipline referrals, location, and time of incidents to measure effectiveness of interventions (Sugai, & Kameenui, 1994).

Maslow's hierarchy of human need. Maslow's contention that belonging is a basic human need is the second theoretical assumption that supports the dissertation study on positive interventions models. Maslow's theory of motivation (1933) was founded on general types of needs. These needs are physical, survival, safety, love, and self-esteem. Maslow argued that these needs must be satisfied before one can respond to deficient needs. The theory of motivation indicated that self-growth occurs when craving, desires, wants, and needs are met. In essence, this theory described a hierarchy of motivations that range in levels from low to high levels. The lower levels of needs are safety and physical requirements.

According to Maslow's (1933) hierarchy of human needs, belonging ranks as third on the list of needs. It precedes self-esteem and self-actualization. Maslow claimed that an individual can only advance on the hierarchy needs chain if needs on the previous levels have been met (Kunc, 1992; Maslow, 1970).

Glasser's choice theory. Glasser's (1984) Choice Theory, formerly known as control theory, was driven by Maslow's theory of self-actualization. This theory posited that students should be encouraged to build caring habits such as respect for all and trust and support rather than destructive habits that criticize and accuse (Glasser, 1992). The premise of this theory is that most student behaviors are chosen. Their behaviors are driven by their genes to satisfy five basic needs. The needs are survival, belonging, power, freedom, and fun (Glasser, 1998). Choice Theory encouraged students to engage in peer to peer or peer to adult dialogue and to reflect on their actions. It was designed to help students understand the motivations behind their behaviors so they can learn how to make better choices. This theory further supported the fundamental principle of positive behavior interventions and supports.

Summary and Conclusion

This chapter presented an overview of the literature that supported a study on Positive Behavior Intervention Supports. Critical factors that effect the school environment were identified as zero tolerance policies, number of school infractions, types of infractions that make up a schools violence index, and school suspensions for urban high schools. The chapter examined theories, school safety regulations, and the disparities of the consequences for infractions noted for misbehaviors in school. The literature showed that a PBIS framework intervention contributes to safe schools by implementing strategies that could reduce school infractions, suspensions and expulsion. In addition, the literature indicated these strategies might effect the school environment. Implementation of PBIS framework in urban environment discussed challenges that might affect student participation in disciplinary initiatives. Chapter 3 details the

methodology for the dissertation study. Research questions are restated, and a research design describes the correlation between variables. In addition, Chapter 3 describes the studied population and the analytic procedures for examining the number of school infractions, number of suspensions, school progress grade, and the school environment of eighteen co-located schools included in the quantitative dissertation study.

Chapter 3: Research Design Methodology

General Perspective

This chapter restates the problem statement and research questions and presents a comprehensive research design. Through a quantitative approach, this study examined the effect of PBIS on the number of infractions, number of suspensions, overall progress report grade, and the school environment. Four research questions guided this study:

The following research questions were developed to address the purpose of the study:

1. Is there a difference between number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{01}): There is no statistical significance in the number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.
2. Is there a difference between the number of suspensions as measured by New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

Null Hypothesis (H_{02}): There is no statistical significance in the number of school suspensions, as measured by New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

3. Is there a difference between the school progress grade as measured by the Department of Education Progress Report Overview and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{03}): There is no statistical significance in the school progress grade as measured by the Department of Education Progress Report Overview, and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

4. Is there a difference between the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{04}): There is no statistical significance in the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

Research Context

According to the Department of Education Progress Report of the district studied, suspension from high school increased from 8% during the 2006-2007 school year to

13% during the 2008-2009 school year. The Office of Schools Referrals (OORS) (2010) indicated that approximately 31 altercations and 17 arrests occurred during the 2010 fall semester at one of the co-located schools within the district studied.

The district studied is a large metropolitan school district in New York State. It has a population of over 129,709 and 45,970 households (U.S. Bureau of the Census, 2008). The district population was diverse, representing various ethnic and cultural backgrounds. The district population was Caucasian (39.5 %), Hispanic (39.0%,) African American (26.0 %), Puerto Rican (21.0%), Asian (8.9%), Mexican (3.6 %), Chinese (1.6%), Vietnamese (1.3%), Filipino (0.9%), Cuban (0.7%), American Indian (0.2%), Japanese (0.1%), and Korean (0.5%) (U.S. Census Bureau 2007-2009). The school district was comprised of 36,906 students (Comprehensive Education Plan, 2010).

According to the district's Accountability and Overview Report 2009-2010, two of the co-located schools had similar peer-to-peer populations. Each school had 80% of students eligible for free lunch and 20% qualified for reduced lunch. The ethnicity distribution of the school district was 24.4% Black or African American; 45% Hispanic or Latino; 37.6% White, and 8.3% Asian or Native Hawaiian.

The Department of Education Progress Report Overview (DORPRO) provides schools with a letter grade that indicates student and school's academic progress for one year. The grade is titled progress report grade. The progress grade ranges from "A" to "F". For the purpose of this study the term school progress grade will be used.

Research Participants

Eighteen co-located urban high schools were analyzed. The narrative for five out of eighteen schools was obtained from the Comprehensive Education Plan developed by

the co-located urban high schools studied. Table 3.1 identifies the school pseudonyms and describes the schools' populations. Table 3.2 depicts the participant's demographics from five co-located urban high schools. Additional co-located urban schools (Appendix D) were analyzed. Fictitious names were created to protect the anonymity and confidentiality of the schools included in this study. Demographic data was collected from the New York State Accountability and Overview archival database.

Table 3.1

Co-located Schools Population

Schools	Student Population
Panther Academy	474
Tiger Academy	367
Cricket High School	1396
Leopard Academy	458
Vermont Academy	484

Leopard Academy was a 10-year-old high school with 471 students from grade 9 through grade 12 (CEP, 2011). The school population was comprised of 42% Black, 41% Hispanic, 10% White, 1% American Indian, and 4.5% Asian students. The student body included 28 English language learners and 59 special education students. Boys accounted for 58.4% of the students enrolled and girls accounted for 41.6%. The average attendance rate for the school year 2009-2010 was 86%. The school had a population with 63% eligible for free and 11% in reduced lunch (CEP, 2011). Leopard Academy shared a building, library, cafeteria and sports facilities with four other schools.

Table 3.2

Student Demographic of Co-located Schools

School	Male	Female	SWD	ELL	Black	Hispanic	White	Asian
Panther	45%	55%	11%	3%	40%	43%	7%	3%
Tiger	58%	42%	8%	15%	37%	58%	3%	2%
Cricket	56%	43%	19%	18%	36%	45%	10%	6%
Leopard	56%	44%	16%	9%	43%	43%	3%	3%
Vermont	57%	43%	7%	3%	40%	45%	5%	8%

Note. SWD = Students with Disabilities; ELL = English Language Learners.

Vermont Academy was an 11-year-old high school with 486 students from grade 9 through grade 12. The school population comprised 40% Black, 41% Hispanic, 6% White, 1% American Indian, and 7% Asian students. The student body included 15 English language learners and 42 special education students. Boys accounted for 53.8% of the students enrolled and girls accounted for 46.2%. The average attendance rate for the school year 2009-2010 was 92%. The school had a population with 72% eligible for free lunch and 7% in reduced lunch (CEP, 2011). Vermont Academy shared a building, library, cafeteria and sports facilities with four other schools.

Panther Academy was a 10-year-old high school with 550 culturally diverse students from grade 9 through grade 12. The school population was comprised of 41% Black, 48% Hispanic, 7% White, and 3% Asian students. The student body included 3% English language learners and 18.6% special education students. Boys accounted for 48.17% of the students enrolled and girls accounted for 51.83 %. The average attendance rate for the school year 2009-2010 was 90 %. The school had a population with 64%

eligible for free lunch and 11% in reduced lunch (CEP, 2010). Panther Academy shared a building, library, cafeteria and sports facilities with four other schools.

Tiger Academy was a 6-year-old high school with 461 students from grade 9 through grade 12. The school population comprised 37% Black, 58% Hispanic, 3% White, and 2% Asian students. The student body included 17.3% English language learners and 18.6% special education students. Boys accounted for 56% of the students enrolled and girls accounted for 44%. The average attendance rate for the school year 2006-2007 was 77.2%. The school had a population with 75% eligible for free or reduced lunch. Tiger Academy shared a building, library, cafeteria and sports facilities with four other schools.

Cricket High School was a 65-year-old high school with 1399 students from grade 9 through grade 12. The school population comprised 36% Black, 47% Hispanic, 10% White, 1% American Indian, and 6% Asian students. The student body included 142 English language learners and 309 special education students. Boys accounted for 54.85 % of the students enrolled and girls accounted for 45.15 %. The average attendance rate for the school year 2008-2009 was 81%. The school had a population with 65% eligible for free lunch and 6% in reduced lunch (CEP, 2008-09). Cricket High School shared a building, library, cafeteria and sports facilities with four other schools.

Instruments Used in Data Collection

The researcher collected archival data from the Accountability and Overview Report, Department of Education Progress Report and Progress Report Overview, New York State School Report Card and Violent and Disruptive Incident Report (VADIR). The database was comprised of the number of student infractions, number of suspensions,

overall school progress grade and the school environment of 18 co-located urban high schools (Appendix D) in a large urban district in New York State.

New York state school report card (NYSSRC). The New York State School Report Card provided statistics about each school including enrollment, demographics, and student achievement. It had three parts: The Accountability and Overview Report and the Comprehensive Information Report (NYSSRC, 2011).

Department of education progress report (DOEPR). The school environment represented 15% of a school's total score on the DOEPR. Components of the DOEPR are student attendance, school community survey, rating academic expectations, safety and respect, and communication and engagement. For the purpose of this study, only the safety and respect factor from the DOEPR school environment was explored. The overview of this report provided the schools' progress report grade.

Department of education progress report overview (DORPRO)**.** Schools receive a letter grade on a progress report. Grades ranged from "A" to "F". Each school's Progress Report Grade measured student's year-to-year progress, compared the school to peer schools, and acknowledged academic student growth, especially students with the greatest need.

Comprehensive education plan (CEP). The blueprint for describing the demographics of the schools population, implementation of instructional strategies, professional development opportunities, and parent involvement activities that promoted continuous school improvement.

Violent and disruptive incident report (VADIR). Violent and Disruptive Incident Reporting System (VADIR) gathered data on violent and disruptive incidents in

schools and used the information to comply with State and federal reporting requirements and to identify schools as persistently dangerous, as required by the NCLB of 2001 (NYSIF). Categories 1–4, 6–13 and 16, indicated the number of incidents in each category in which a weapon was or was not involved. Categories 1–17 indicated the number of incidents in each category that are drug or alcohol related. Category 17 was used to describe incidents involving weapons possession. Category 18 was used to describe incidents involving the possession, use, or sale of drugs. Category 19 was used to describe incidents involving only the possession, use, or sale of alcohol. Category 20 was used to describe non-violent incidents that disrupt the learning process and were not reportable in any of the other categories.

Procedure for Data Collections and Analysis

School data was divided into different subsets according to the number of infractions, number of suspensions, school progress grade and the school environment.

After coding and interpreting, the data was input into Statistical Package for Social Sciences (SPSS 20.0). A nonparametric correlation analysis for this study determined whether a correlation existed between PBIS and the number of infractions, number of suspensions, school progress grade and the school environment of co-located urban high schools. In order to determine the relationship between the means of the variables, an ANOVA analysis was used. A one-way ANOVA was conducted to help distinguish statistically significant differences between the independent variable (implementing PBIS) and dependent variables. A one-way ANOVA analyzed the means of the population sample (Huck, 2008). The one-way ANOVA analysis is a widely used nonparametric test that examines if there is a frequency distribution of the data. In

addition, a univariate analysis was conducted to examine across cases of one variable. The single variable analyzed the distribution, central tendency of the means and dispersion of archival data.

The researcher created a standard code sheet for quantitative and descriptive data. The code sheet indicated fictitious school names for 18 co-located urban high schools. Prior to analyzing the four hypotheses, data hygiene and data screening were undertaken to ensure the variables of interest met appropriate statistical assumptions. The analyses followed by a similar analytic strategy in that the variables were first evaluated for missing data and univariate outliers, normality (whether the data set had a normal distribution) and homogeneity of variance to determine if the error variance of the dependent variable was equal across groups. In addition, the Levene's test was used to determine if the error variance of the dependent variable was equal across groups for Hypotheses (Levene, 1960).

Schools that never implemented PBIS were nominally coded as 0. Respectively, schools that implemented PBIS in some years were coded as 1 and schools that implemented PBIS in all years were coded as 3. Schools that received an A on the School progress grade or school environment surveys were coded as 1; schools that received a B on the School progress grade or school environment survey were coded as a 2. Correspondingly, schools that received a C on the School progress grade or school environment survey were coded as a 3 and schools that received a D on the School progress grade or school environment survey were coded as a 4.

Chapter 4: Results

Introduction

This chapter examines the four research questions presented in Chapter 1 and provides a summation of the results. Each research question is followed by a null hypothesis and a synopsis of data analysis associated with the research question. The research question section restates research questions. The data analysis and findings section contains results of analyses. This chapter concludes with a summary of the results of this study.

Problem Statement

Forty-nine percent of students in schools that implement a zero tolerance policy have suspended students from school for a period of five days or more (Reyes, 2006). Suspended students removed from the educational setting have missed opportunities to engage with peers and teachers. Students on average spend more than 16 million hours a year serving suspensions. Research indicated safe school environments can only exist when school-wide proactive strategies are evident in the discipline process (Skiba, 2009).

There is a need to develop school-wide behavior interventions for co-located urban high schools. Current studies on positive behavior intervention exist primarily in the elementary, junior high, and middle school (Sugai & Horner, 2002). The issue addressed in this research is the gap in knowledge of behavior intervention models for co-located urban high schools.

Research Questions

1. Is there a difference between number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{01}) There is no statistical significance in the number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

2. Is there a difference between the number of suspensions as measured by the New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{02}): There is no statistical significance in the number of school suspensions, as measured by the New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

3. Is there a difference between the school progress grade as measured by the Department of Education Progress Report Overview and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{03}): There is no statistical significance in the school progress grade as measured by the Department of Education Progress Report

Overview, and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

4. Is there a difference between the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State?

   Null Hypothesis (H_{04}): There is no statistical significance in the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State.

Data Analysis and Findings

Inferential statistics were used to draw conclusions from the sample tested. The Statistical Package for the Social Sciences (SPSS) was used to code and tabulate scores collected from archival data and provide summary values where applicable including the mean and standard deviation. In addition, infractions by type across school years (Appendix E outlines infractions across years) and demographic data was processed using frequency statistics. Finally, for each hypothesis, a one-way ANOVA was used to detect amount of shared variance and strength of effect among the groups of interest.

Prior to analyzing the four research questions, data hygiene and data screening were undertaken to ensure the variables of interest met appropriate statistical assumptions. Thus, the following analyses followed a similar analytic strategy in that the variables were first evaluated for missing data and univariate outliers, normality (whether

the data set had a normal distribution) and homogeneity of variance (to determine if the error variance of the dependent variable was equal across groups).

A Levene test was conduct for all four hypotheses. The results of Levene testing indicated different outcomes for each hypothesis. The Levene test was used to determine if the error variance of the dependent variable was equal across groups for Hypothesis 1. Results from the test indicated that the distribution of the DV met the assumption of homogeneity of variance. The degree of freedom F (2, 11) indicates the number of participants of the study that are included in the formula. The P-value for Null Hypothesis 1 is .959. This means if it was stated that there is a difference in the number of infractions due to implementation of PBIS the null hypothesis would be rejected. This statement would be incorrect 96% of the time. Since that is above a 5% chance of error, the null hypothesis would be retained. Subsequently, the Levene test was used for Hypothesis 2 to determine if the error variance of the dependent variable was equal across groups. Results from the test indicated that the distribution of the DV did not meet the assumption of homogeneity of variance. Specifically, the test indicated F (2, 11) = 6.357, p = .015, therefore, a corrected F-statistic was used in the analysis to correct unequal variances. In addition, the Levene test was used to determine if the error variance of the dependent variable was equal across groups for Hypothesis 3. Results from the test indicated that the distribution of the DV met the assumption of homogeneity of variance. Specially, the test indicated F (2, 11) = 2.014, p = .180**.** The concluding Levene test was used to determine if the error variance of the dependent variable was equal across groups for Hypothesis 4. Results from the test indicated that the distribution of the DV met the

assumption of homogeneity of variance. Specifically, the test indicated F (2, 11) = 0.969, p = .410.

Research question 1. Is there a difference between the number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? The results indicated that implementation of the PBIS, whether in zero years, in some years, or in all years, did not affect the number of infractions. Statistically significant differences were not observed between the number of school infractions as measured by an analysis of variance and implementation of PBIS. Therefore, Hypothesis 1 that stated there is no relationship between PBIS and the number of infractions was not rejected. Table 4.1 displays a detail of values used in the one-way ANOVA analysis for Hypothesis 1.

Table 4.1

Detail values used in the one-way ANOVA Analysis of Hypothesis 1

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Corrected Model	44.881	2	22.440	.043	.959	.008	.055
Intercept	24204.802	1	24204.802	45.880	.000	.807	1.000
PBIS	44.881	2	22.440	.043	.959	.085	.055
Error	5803.278	11	527.571				
Total	32368.667	14					
Corrected Total	5848.159	13					

This research question was examined using one-way AVOVA to detect the amount of shared variance and strength of effect among the groups of interest. Basic parametric assumptions of normality were assessed for the dependent variable (number of infractions) and independent variable (PBIS implementation) by examining deleted residuals. The data indicates a deleted residual histogram was created from the one-way ANOVA test. This enables the researcher to visually evaluate the normality assumption as shown in Figure 4.1. Norusis (2011) argued that one can evaluate departures from normality more easily with deleted residuals than other types of residuals. The farther apart the means are, the bigger the between groups variance will get (while the average within groups variance stays the same). The bigger F value makes evident the more significant difference. For Hypothesis 1, data from 18 co-located high schools were collected and 15 co-located schools were entered into the one-way ANOVA model (n = 15).

Missing data were investigated by running frequency counts in SPSS 20.0 and three schools were identified as missing data.

Results from testing Hypothesis 1 failed to indicate a statically significant relationship between implementation of PBIS and number of infractions (p=.959). A test for univariate outliers was conducted by converting observed scores to z-scores and comparing each co-located urban schools values to the critical value of ±3.29, $p < .001$ (Tabachnick & Fidell, 2007). No univariate outliers were found.

As depicted in Figure 4.1, the deleted residual histogram demonstrated negative skew. Visual evidence of normality was assessed by comparing frequency bars to the

superimposed normal curve. Since the deleted residuals did not exhibit significant deviations from normality, the distributions were assumed to be normally distributed.

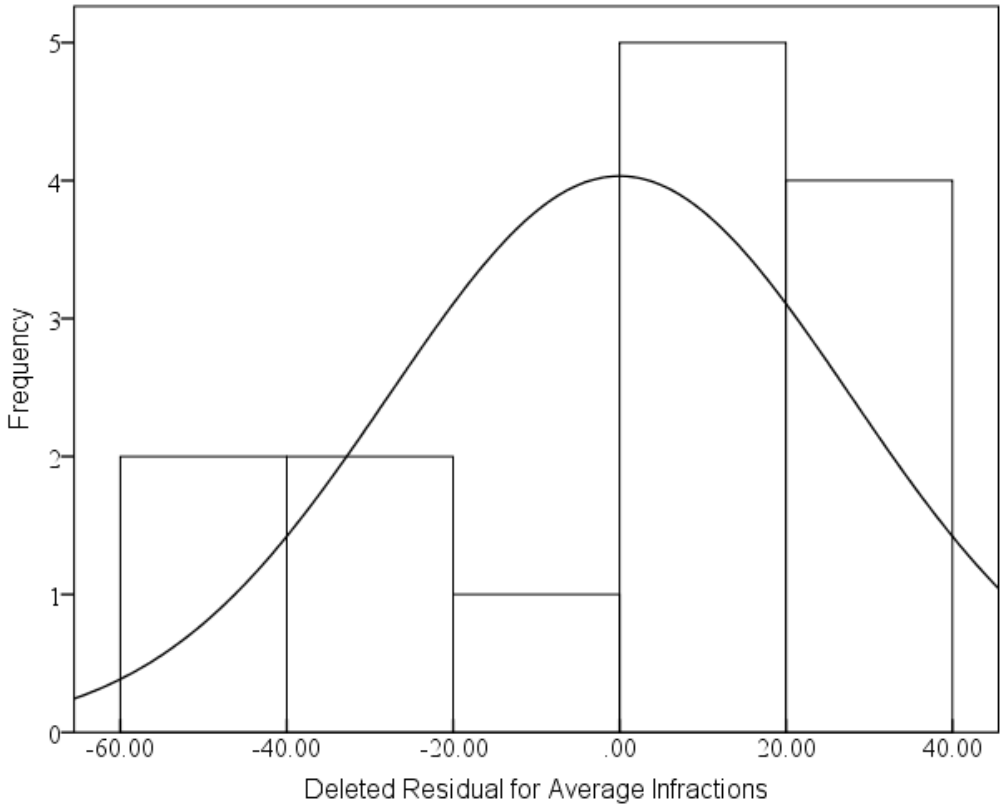

Figure 4.1. Histogram of deleted residuals with normal curve superimposed.

Hypothesis 1 was analyzed using analysis of variance to determine whether number of infractions differed based on school implementation of PBIS. The independent variable for Hypothesis 1 was implementation of PBIS. The participants were categorized into three groups (0 = PBIS never implemented; 1 = PBIS implemented in some years; and 3 = PBIS implemented in all years). The dependent variable, number of infractions, for each participating school was derived by adding the number of infractions for each time period collected and then averaging them across time. SPSS 20.0 was used to test whether there was a significant difference in number of infractions among schools with differing levels of PBIS implementation. Results from testing Hypothesis 1 revealed that

there was no difference among groups depending on whether PBIS was implemented; F (2, 11) = .043, p = .959 (two-tailed). Descriptive statistics and kurtosis (normality) for the dependent variable by PBIS implementation group are displayed in Appendix F.

Research question 2. Is there a difference between the number of suspensions as measured by New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? The results indicated that the implementation of PBIS, whether in zero years, in some years, or in all years, did not affect the number of suspensions. Statistically significant differences in the number of suspensions were not observed by analysis of variance and implementation of PBIS. Therefore, Hypothesis 2 that stated that there is no relationship between PBIS and the number of suspensions was not rejected. Table 4.2 displays a detail of values used in the one-way ANOVA analysis for Hypothesis 2.

Table 4.2

Detail of values used in the ANOVA Analysis of Hypothesis 2

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Corrected Model	2850.839	2	1425.420	.789	.479	.125	.152
Intercept	36381.200	1	36381.200	20.129	.001	.647	.983
PBIS	2850.839	2	1425.420	.789	.479	.125	.152
Error	19881.764	11	1807.433				
Total	56379.278	14					
Corrected Total	22732.603	13					

This research question was examined using one-way ANOVA to detect the amount of shared variance and strength of effect among the groups of interest. Basic parametric assumptions of normality were assessed for the dependent variable (number of suspensions) and independent variable (PBIS implementation) by examining deleted residuals. The data indicated a deleted residual histogram was created from the one-way ANOVA test to enable the researcher to visually evaluate the normality assumption as shown in Figure 4.2. For Hypothesis 2, data from 18 co-located high schools were collected and 14 were entered into the one-way ANOVA model (n = 14).

Results from testing Hypothesis 2 failed to indicate a statically significant relationship between implementation of PBIS and number of suspensions (p = .959). No univariate outliers were found.

As depicted in Figure 4.2, the deleted residual histogram demonstrates apparent normality. Visual evidence of normality was assessed by comparing frequency bars to the superimposed normal curve. However, to test if the distribution was significantly skewed, the deleted residual skew coefficient of 0.892 was divided by the skew standard error of 0.597 resulting in a z-skew coefficient of 1.494. Since the deleted residuals did not exhibit significant deviations from normality, the distributions were assumed to be normally distributed.

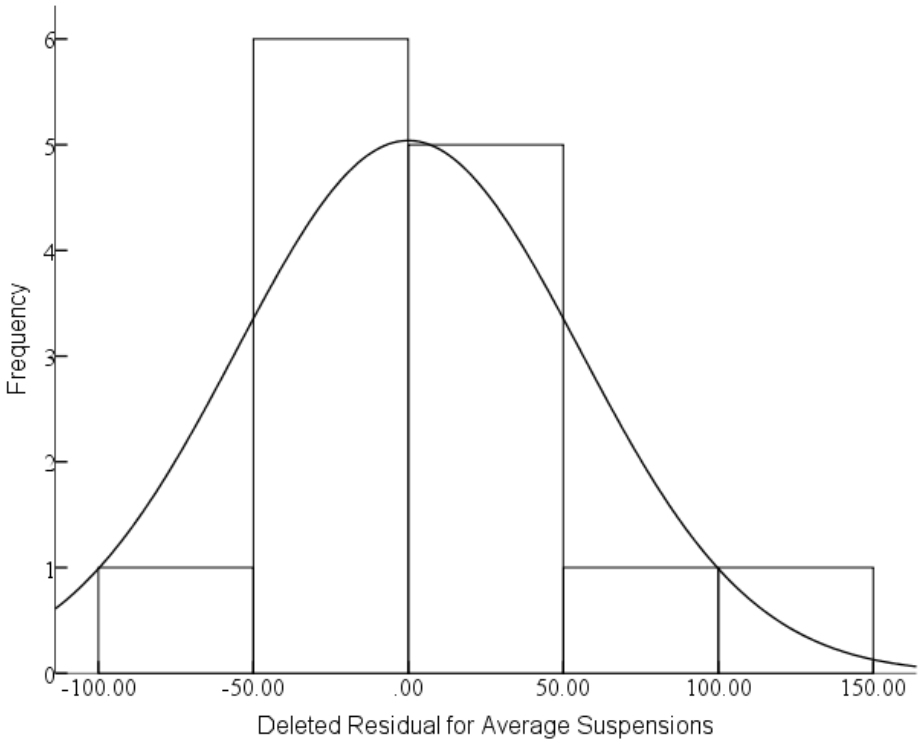

Figure 4.2. Histogram of the deleted residuals with normal curve superimposed.

Hypothesis 2 was analyzed using analysis of variance to determine whether number of suspensions differed based on school implementation of PBIS. The independent variable for Hypothesis 2 was implementation of PBIS and was categorized into three groups (0 = PBIS never implemented; 1 = PBIS implemented in some years; and 3 = PBIS implemented in all years). The dependent variable, number of suspensions, for each participating school was derived by adding up the number of suspensions for each time period collected and then averaging them across time. Results from the test indicated that there was no difference among groups depending on whether PBIS was implemented; F (2, 11) = .789, p > .479 (two-tailed). Table 4.2 displays details of values used in the one-way ANOVA analysis for Hypothesis 2**.** Descriptive statistics and kurtosis for the dependent variable by PBIS implementation groups are displayed in Appendix G.

Research question 3. Is there a difference between the school progress grade as measured by the Department of Education Progress Report Overview and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? The results indicated that implementation of the PBIS, whether in zero years, in some years, or in all years, did not affect the school progress grade. Statistically significant differences in school progress grades were not observed as measured by an analysis of variance and implementation of PBIS. Therefore, Hypothesis 3 that stated there is no relationship between PBIS and the progress grade was not rejected. Table 4.3 displays a detail of values used in the one-way ANOVA analysis for Hypothesis 3.

Table 4.3

Detail of values used in the ANOVA Analysis of Hypothesis 3

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Corrected Model	2.289	2	1.144	1.331	.304	.195	.229
Intercept	58.109	1	58.109	67.573	.000	.860	1.000
PBIS	2.289	2	1.144	1.331	.304	.195	.229
Error	9.459	11	.860				
Total	68.417	14					
Corrected Total	11.749	13					

This research question was analyzed using one-way AVOVA to detect the amount of shared variance and strength of effect among the groups of interest. Basic parametric assumptions of normality were assessed for the dependent variable (school progress

grade) and independent variable (PBIS implementation) by examining deleted residuals. Data indicated, a deleted residual histogram was created from the one-way ANOVA test to enable the researcher to visually evaluate the normality assumption as shown in Figure 4.3. For Hypothesis 3, data from 18 co-located high schools were collected and 14 were entered into the ANOVA model (n = 14). Missing data were investigated by running frequency counts in SPSS 20.0 and three schools were missing data. Hypothesis 3 was analyzed using analysis of variance to determine whether school progress grade differed based on school implementation of PBIS. The independent variable for Hypothesis 3 was implementation of PBIS and was categorized into three groups (0 = PBIS never implemented; 1 = PBIS implemented in some years; and 3 = PBIS implemented in all years). The dependent variable, school progress grade, for each participating school was derived by assigning a number for each grade (1 = A; 2 = B; 3 = C; and 4 = D) and then averaging the grades across the time periods.

Results from testing Hypothesis 3 failed to indicate a statically significant relationship between implementation of PBIS and school progress grade ($p < .001$). No univariate outliers were found.

As depicted in Figure 4.3, the deleted residual histogram demonstrates apparent normality. Visual evidence of normality was assessed by comparing frequency bars to the superimposed normal curve. However, to test if the distribution was significantly skewed, the deleted residual skew coefficient of -0.429 was divided by the skew standard error of 0.597 resulting in a z-skew coefficient of -0.719. Since the deleted residuals did not exhibit significant deviations from normality, the distributions were assumed to be

normally distributed. Descriptive statistics for dependent variable by PBIS is demonstrated in Appendix H.

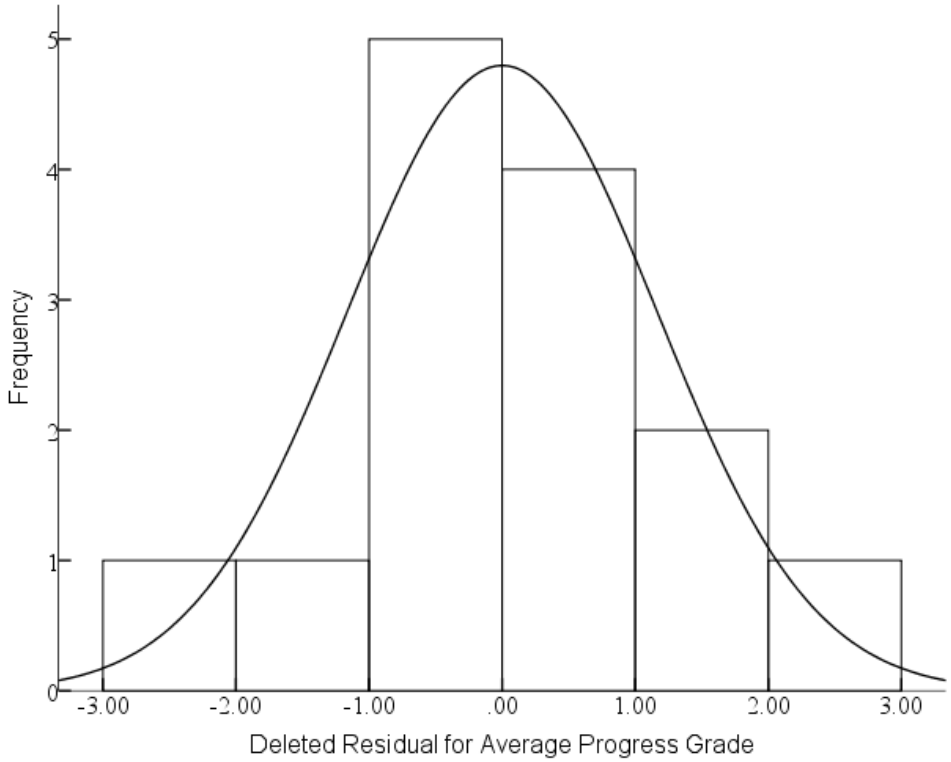

Figure 4.3. Histogram of the deleted residuals with normal curve superimposed.

Research question 4. Is there a difference between the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? The results indicated that implementation of the PBIS, whether in zero years, in some years, or in all years, did not affect the safety and respect component of the school environment. Statistically significant differences in the safety and respect component of the school environment were not observed as measured by an analysis of variance and implementation of PBIS. Therefore, Hypothesis 4 that

stated there is no relationship between PBIS and the school environment was not rejected. Table 4.4 displays a detail of values used in the one-way ANOVA analysis for Hypothesis 4.

Table 4.4

Detail of values used in the ANOVA Analysis of Hypothesis 4

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Corrected Model	0.504	2	0.252	0.418	.669	.071	.101
Intercept	56.700	1	56.700	94.025	.000	.895	1.000
PBIS	0.504	2	0.252	0.418	.669	.071	.101
Error	6.633	11	0.603				
Total	72.139	14					
Corrected Total	7.137	13					

This research question was examined using one-way AVOVA to detect the amount of shared variance and strength of effect among the groups of interest. Basic parametric assumptions of normality were assessed for the dependent variable (school environment) and independent variable (PBIS implementation) by examining deleted residuals. Hypothesis 4 was analyzed using analysis of variance to determine whether school environment differed based on school implementation of PBIS. The independent variable for Hypothesis 4 was implementation of PBIS and was categorized into three groups (0 = PBIS never implemented; 1 = PBIS implemented in some years; and 3 = PBIS implemented in all years). The dependent variable, school environment, for each

participating school was derived by assigning a number for each grade given for environment (1 = A; 2 = B; 3 = C; and 4 = D) and then averaging the grades across the time periods. For Hypothesis 4, data from 18 co-located high schools were collected and 14 were entered into the ANOVA model (n = 14). Hypothesis 4 was analyzed using analysis of variance to determine whether school environment differed based on school implementation of PBIS. Descriptive statistics for the dependent variable by PBIS implementation groups are displayed in Appendix I.

Results from testing Hypothesis 4 failed to indicate a statically significant relationship between implementation of PBIS and school environment (p >.669). No univariate outliers were found.

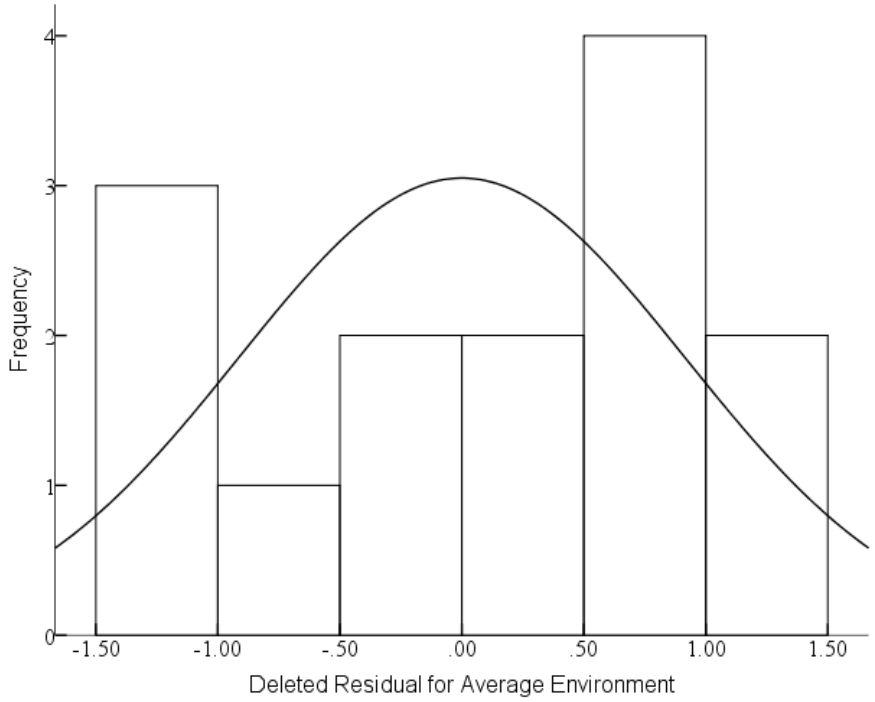

Figure 4.4. Histogram of the deleted residuals with normal curve superimposed.

As depicted in Figure 4.4, the deleted residual histogram demonstrates apparent negative skew. Visual evidence of normality was assessed by comparing frequency bars

to the superimposed normal curve. However, to test if the distribution was significantly skewed, the deleted residual skew coefficient of -0.431 was divided by the skew standard error of 0.597 resulting in a z-skew coefficient of -0.722.

Summary of Results

This ex-post facto study examined the effect of PBIS on school infractions, suspension, school progress grade, and the school environment. A one-way ANOVA was used to analyze the means of the sample of 18 co-located urban high schools in New York State.

Inferential statistics were used to interpret data from the study sample. The study used quantitative methodology and a repeated measure to analyze data. SPSS 20.0 was used to code and tabulate scores on the data collected from co-located urban high schools. The Levene test was conducted for data hygiene and data screening to ensure the variables of interest met appropriate statistical assumptions. In addition, SPSS provided summation of values that included the mean, variance, and standard deviation. Frequency analysis and analysis of variances were used to detect differences in schools that implement Positive Behavior Intervention and Support and co-located urban high schools that do not. Each research question and analysis indicated no statically significant differences between PBIS and the number of school infractions, number of suspensions, school progress grade, and the safety and respect component of the school environment. The Hypotheses for this study were retained. Appendix J details the results from analyzing four Hypotheses using one-way ANOVA.

Chapter 5: Discussion

Introduction

This chapter adds meaning to the results reported in Chapter 4, identifies the limitations of this study, and provides recommendations for future research. The research examines the relationship between Positive Behavior Interventions and Supports (PBIS) and the number of infractions, number of suspensions, school progress grade, and the safety and respect component of the school environment. Each null hypothesis was tested for effects over time. The sample size of the study is 18 co-located urban high schools. Analyses of 14 out of 18 co-located high schools in this study include a student population of 36,906. Results of the sample indicate there is no statistically significant difference between the independent variable (implementing PBIS) and the dependent variables (the number of infractions, number of suspensions, school progress grade, and the safety and respect component of the school environment).

This quantitative study utilizes longitudinal data from the New York State Department of Education database. The database details the number of infractions, the number of suspensions, school progress grade, and school environment profiles of co-located high schools. To make schools safe administrators' response is to rely on stricter discipline regulations such as zero tolerance. Students who violated the safety components of public schools' Code of Discipline eventually experience suspension or expulsion. Suspension and expulsion has denied numerous students their right to a free education (Student Safety Coalition, 2008). The research indicates safe school

environments can only exist when school-wide proactive strategies are evident in the discipline process (Skiba, 2009). School administrators can use the findings of this study to be proactive by developing preventative initiatives to support disciplinary issues for students that violate school safety regulations.

Implications of Findings

The effectiveness of Positive Behavior Interventions and Supports failed to indicate a statically significant relationship with schools that implement PBIS and schools that do not implement PBIS.

Research question 1. Is there a difference between the number of school infractions as measured by the State Violent and Disruptive Incident Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? Finding from this study indicates that the implementation of PBIS did not effect the number of infractions in schools that implemented PBIS compared to schools that did not implement PBIS. It is important to note, that accepting the null hypothesis and not finding statistical significance does not mean that statistical significance does not exist (Bohanon, 2006). Given the research on PBIS, and findings from this study, that there is no relationship between PBIS and the number of infractions, the researcher must consider if other variables are affecting the results and intervening on the outcomes.

Specially, the data available from the New York State VADIR Report does not allow for a range of scores that facilitate the grouping of schools that implemented PBIS over a longitudinal time. For example, if a regression analysis was possible for schools that implemented PBIS over one year as compared to schools, that may have

implemented PBIS over five years or more there may be statistical differences. In addition, this study seeks to investigate statistical differences of PBIS and its effect on the number of infractions in the complex setting of co-located high schools. Further research is needed to examine moderating variables that affect the outcome.

Research question 2. Is there a difference between the number of suspensions as measured by New York State Accountability and Overview Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? Finding from this study indicates that implementation of PBIS did not effect the number of school suspensions. This finding has significant implication on the disciplinary actions for students who incur an infraction. There is a process that schools engage in to determine whether or not to enforce a suspension. The finding of this study that there is no difference in the number of suspension in schools that implement PBIS and schools that do not implement PBIS does not mean that a difference does not exist. The process for addressing disciplinary issues varies from school to school. For schools that are considering implementing PBIS, further analysis of moderating variable such as the fidelity of implementation, the structures, and supports in place to monitor outcomes may contribute the absence of significance in this study.

More important, given the sense of urgency to reduce the number of suspensions in schools, the findings from this study that there is no difference between PBIS schools and non-PBIS schools indicate that no difference may inform educators, building leaders, and superintendents to consider other behavioral models to effect the number of suspensions.

Another implication of the finding from this study is the disproportionate representation of minorities and suspensions. In particularly, African American male students face suspensions primarily due to biases and interpretations of acceptable behaviors. As deans, principals, and superintendents search to provide a safe school environment, one should consider the diversity of not only ethnicities but cultures represented within the complexity of high school. High schools need to take apart behavior norms and present an overview of behaviors that describe what is acceptable for the culture of a particular school and what behaviors are not acceptable.

Research question 3. Is there a difference between the school progress grade as measured by the Department of Education Progress Report Overview and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? Finding from this study indicates that implementation of PBIS did not effect the school progress grade. Given the finding, there is no statistical difference for schools implementing PBIS and schools that do not implement on the school progress grade, school leaders should note PBIS does no harm to their school progress grade. This finding has significant implication on the school leaders' decision as to whether or not to implement PBIS. For school leaders with transient staff may not have the resources to sustain PBIS framework. The finding of this study should be considered in the decision making process.

Research question 4. Is there a difference between the safety and respect component of the school environment as measured by the Department of Education Progress Report and implementation of PBIS in co-located urban high schools in a large metropolitan district in New York State? A finding from this study indicates that

implementation of PBIS does not effect the safety and respect component of the school environment. The data used to interpret and define safety and respect is based on the parameters set forth by the New York State (NYSED) VADIR report. Given the finding, that there is no statistical difference in the school environment, further research should go beyond the definition outlined by the NYS Report Card. School environments are complex and multifaceted additional variables from the New York School Report could include other factors such as student attendance and student engagement to examine an effect of PBIS on school environments.

As administrators of co-located urban high schools, charter, private, and specialty schools consider implementation of PBIS, one should revisit current disciplinary regulations, and zero tolerance suspensions for alignment to school mission and school safety issues. Implications of zero tolerance suspensions have a negative effect on proactive initiatives and the student removal process. The finding implies that further research may be needed on moderating variables that may influence the school progress grade. In addition, the dependent variable of school progress grade may consider other variables such as student progress and student performance for further research.

Limitations

The observed power of the data indicate that a small sample size did not effect implementation of PBIS (IV) and the number of infractions, number of suspensions, school progress grade and school environment. With a larger sample, this study might have found differences between groups if they existed. With a sample size of only 14 out of 18 co-located high schools with complete data, the effect would have to be extremely large for the analysis of variance to indicate differences. Another limitation of this study

is gender. The design of this study analyzes suspension from a global perspective. To help schools better identify the disciplinary needs of the school moderating variable such as male suspension and females suspension need further exploration.

Recommendations

The focus of this study is on the implementation of PBIS on co-located urban high schools and safe schools. Research that is more expansive is needed to examine the effect of PBIS in co-located urban high schools over time. The following are recommendations for future research.

A recommendation for further study should consider a sample size of thirty schools or more. From a statistical perspective, the more representation of the sample in a study could ensure that all school types are represented for analysis and comparison. This study only analyzed 18 co-located urban high schools.

Another recommendation for future research would be to conduct an analysis of dependent variables such as the number of male infraction compare to the number of females' infractions. For further analysis of variances of the number of male suspensions, compare to the number of female suspensions and the implementation of PBIS for statistical differences. The lens of the New York State VADIR report does not allow for a range of scores that facilitate grouping of schools that implemented PBIS over a longitudinal time. Specifically, if a regression analysis is conducted for schools that implement PBIS over one year as compared to schools that may have implemented over five years or more some statistical differences may exist. The effectiveness of PBIS implementation during various terms semesters of the school year could influence the effectiveness of over time.

A suggestion for further research is the use of qualitative data. Data from surveys and interviews from schools that pilot PBIS prior to school-wide implementation provide another perspective on the challenges confronted by urban high schools. Information obtained from qualitative methodology could contribute to the development of a disciplinary matrix that prioritizes supports for adolescents.

Recommendations for practice. Administrators of co-located urban high schools considering PBIS should discuss implementation procedures, behavior expectations, and types of supports during building council meetings. The effectiveness of PBIS implementation could use safe school indicators (assault, with or without a weapon, burglary, sexual offenses, robbery) to decrease antisocial behaviors.

Staff trained to maintain PBIS framework on co-located urban high schools should identify behaviors that require support at the Tier I level of intervention. By monitoring students' behavior and engaging in proactive interventions at Tier II level could shape discipline expectations. In addition, proactive interventions could avoid intensive student support at the Tier III level.

As co-located urban high schools address behaviors of students who violate the codes of discipline regulations. There, should be consistency in delivery of the consequences for antisocial behavior. If schools are encouraged to implement PBIS framework to reduce suspensions the findings of this study underpins the quest for other disciplinary options at the high school level.

Conclusion

Suspension or expulsion of any student is problematic for the student, school environment and community. The design of this study examines New York State

Department of Education accountability tools use of a comprehensive reporting program of violent and disruptive incidents, entitled Violent and Disruptive Incident Report (VADIR**).** The VADIR provides information on the number of school infractions and description of the violent and disruptive acts in schools. New York State Department of Education requires schools to record all behavioral incidents into a web-based database that outline 21 infraction categories (Figure 5.1 describes frequency of infractions by school years). The School Violence Index (SVI) has 11 safe school indicators that determine the level of danger.

The finding from this study is through the lens of the New York State Safe Schools Against Violence in Education Act (SAVE) and the VADIR. This study examines theories, school safety regulations, and the disparities of the consequences for infractions noted for antisocial behaviors in schools. The literature identifies critical factors that effect the school environment as zero tolerance suspensions, number of school infractions, and types of infractions that make up a schools violence index for urban high schools. In addition, this study examines the New York State School Report Card (NYSSRC) that provides statistics about each school including enrollment, demographics, and student achievement. It has three parts: The Accountability and Overview Report and the Comprehensive Information Report (NYSSRC, 2011).

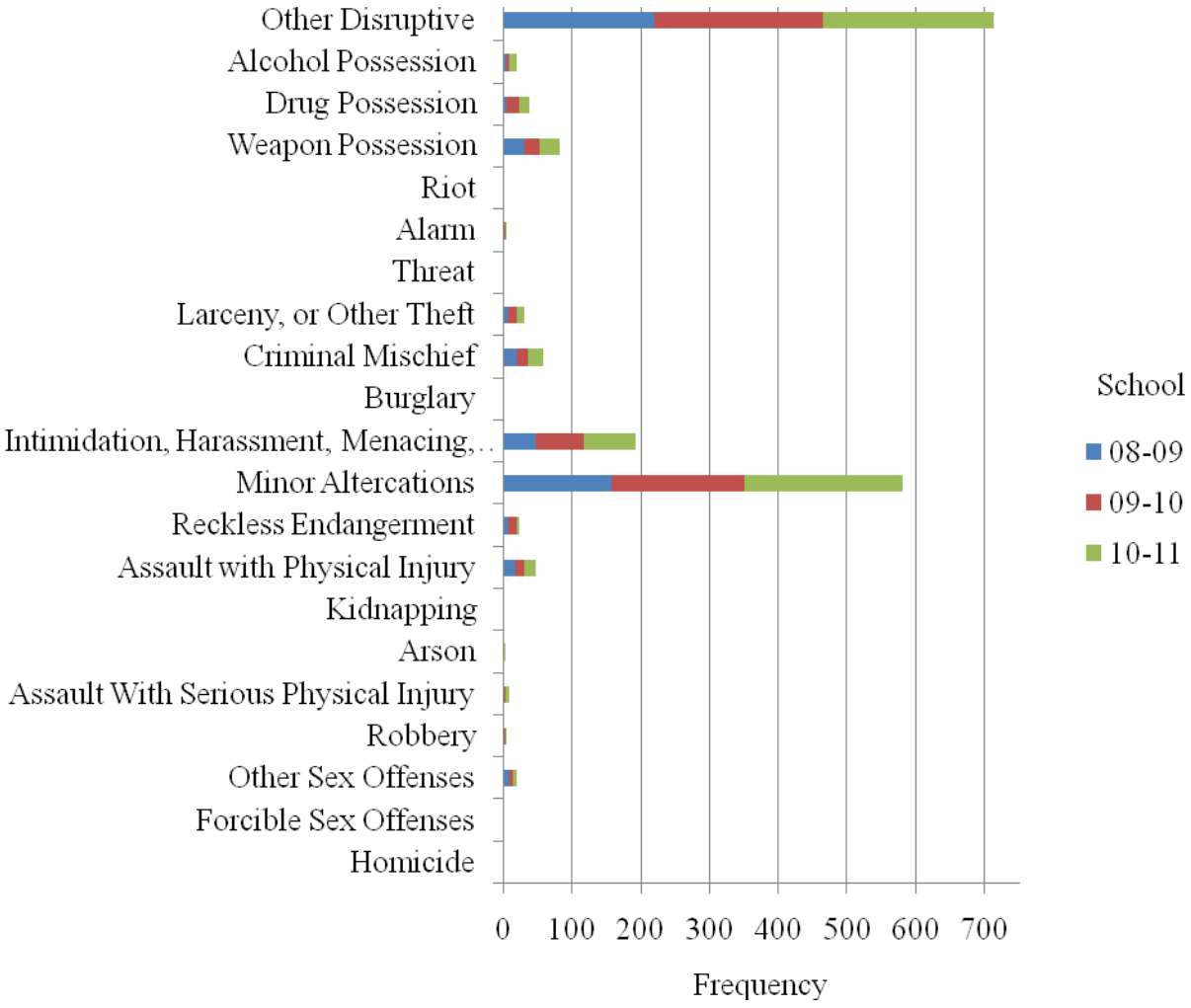

Figure 5.1. Frequency of infractions by school year.

Fifteen years of research shows that PBIS has been effective in sustaining and maintaining positive behavior in students and school environments (National Association of School Psychologists, 2006). Factors such as zero tolerance policy increased punishments for certain behavioral infractions without remediation from administrative efforts. The implications of zero tolerance suspension influence the outcome of PBIS implementation. The Positive Behavior Interventions and Supports process requires acknowledgment of appropriate behaviors and discouraging inappropriate behaviors

using systems established by the school (Lewis & Sugai, 1999). The effectiveness of the program is subject to constant evaluation and monitoring (Colvin, 1991; Colvin, Sugai, & Kameenui, 1994; Lewis & Sugai, 1999). The PBIS framework procedure consists of the use of data to inform and guide interventions.

Inferential statistics is used to draw conclusions from the sample tested. A one-way ANOVA is used to detect the amount of shared variance and strength of effect among the groups of interest. Frequency statistics and analysis of variance determine whether differences existed among schools. Data hygiene and data screening undertaken to ensure the variables of interest met appropriate statistical assumptions. The Levene's test is used to determine if the error variance of the dependent variable was equal across groups for the four Hypotheses.

Given the urgency to provide a safe environment for all students this study examines the number of infractions and suspensions at each school. The design of this study investigates if there is a difference in the number of infraction and the number of suspensions in schools that implement PBIS and school that do not implement PBIS. Given the research on PBIS, and the fact that findings from this study indicate that there is no relationship between PBIS and the number of infractions, the researcher must consider if other variables are affecting the results and intervening on the outcomes.

In particular, the data available from the New York State VADIR Report does not allow for a range of scores that facilitate the grouping of schools that implemented PBIS over a longitudinal time. For example, if a regression analysis was possible for schools that implemented PBIS over one year as compared to schools, that may have implemented PBIS over five years or more there may be statistical differences. In

addition, this study seeks to investigate statistical differences of PBIS and its effect on the number of infractions in the complex setting of co-located high schools. Further research is needed to examine moderating variables that affect the outcome. Further findings from this study indicate that implementation of PBIS did not effect the number of school suspensions. This finding has significant implication on the disciplinary actions for student who incur an infraction. There is a process that schools engage in to determine whether or not to enforce a suspension.

The finding of this study that there is no difference in the number of suspension in schools that implement PBIS and schools that do not implement PBIS does not mean that a difference does not exist. The process for addressing disciplinary issues varies from school to school. For schools that are considering implementing PBIS, further analysis of moderating variable such as the fidelity of implementation, the structures, and supports in place to monitor outcomes may contribute to the absence of significance in this study. This study also examines the relationship of implementing PBIS and the school progress grade.

Results from research sample failed to indicate relationship between PBIS implementation and the school progress grade. It is statistically possible with a larger research sample this study might have found some differences between groups if they existed. Results of the research sample of 18 co-located high schools for this study indicate no statistically significant difference between the independent variable (implementing PBIS) and the dependent variables.

Issues that relate to PBIS and urban environments indicates three features unique to the PBIS framework implementation (Journal of PBIS, 2004).Urban environment

factors such as the quality of life (Markey, Markey, Quant, Santelli & Turnbull, 2002), implementation factors (Netzel & Eber, 2003) and behavior outcomes (Warren et. al., 2003). Netzel and Eber (2003) case study describe urban school districts as having a unique challenge of meeting all of their students' needs due to large student population, high poverty rates, diverse communities and limited resources. Superintendents, building leaders and administrators of co-located urban high schools should consider the findings of this study on the implementation of PBIS. Urban high schools are very complex. There is a need for further research and evaluation of disciplinary regulations, zero tolerance suspensions, and safety accountability that affect the outcome of PBIS base on the parameters of safe school indictors. Implications of zero tolerance suspensions have a negative effect on proactive initiatives to the student removal process. The design of this research did not consider these variables. There is a need for further research in the area of urban factors that contribute to the process of addressing support for disruptive adolescents. Finding from this study indicate that implementation of PBIS did not effect the school progress grade or school environment. This finding has significant implication on school leaders and superintendent's decision as to whether or not to implement PBIS. For school leaders who have a cause for implementing PBIS should pilot the framework on first year high school students for one year. The outcome of the pilot program and the finding from this student should contribute to the decision making process whether to continue implementation of PBIS or consider other behavior models.

Results from the one-way ANOVA, in this study, indicates that there was no difference among groups depending on whether PBIS implementation occurs in zero years, in some years, or in all years. The findings from this research imply that further

research may be needed on moderating variables that may influence school environment. Limitations to this study such as a small sample size did not effect implementation of PBIS (IV) and the number of infractions, number of suspensions, school progress grade and school environment (DV). In addition, the design of this study analyzes suspension from a global perspective. To help schools to better identify the disciplinary needs of the school moderating variable such as male suspensions and females suspensions need further exploration.

This study examines the relationship of Positive Behavior and Interventions and Supports framework to support sustainable practices that influence student behavior and safe school environments. Results from this study have significant implication on school leaders and superintendent's decision as to whether or not to implement PBIS. For school leaders who may not have a cause for the implementing PBIS but are mandated to pilot PBIS framework should consider these findings in their decision making process. As superintendents and school leaders voice concern for creating safe schools under the guidelines of ESEA, the finding of this study may influence the decision to pursue other disciplinary options. Leaders, educators, and researchers should consider other behavior models aligned with the Safe School Act and the commitment of providing adolescent an innovative pragmatic approach to address antisocial behaviors.

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Appendix A

Criteria for Designating Persistently Dangerous Schools

Designation of persistently dangerous schools is based on Violent and Disruptive Incident data.
The Department has established a School Violence Index (SVI) to identify persistently dangerous schools. Schools may be designated as persistently dangerous if they meet the following criteria:

IF for two consecutive school years, a school has EITHER:
1) An SVI of 1.5 or greater
OR
2) An SVI of 0.5 or greater AND a total of 60 or more violent incidents THEN the school may be designated as persistently dangerous.

The School Violence Index (SVI)
The SVI is a ratio of violent incidents to enrollment in a school and is determined by the number
of incidents, the seriousness of the incidents, and the school's enrollment. The table below
provides the weights for each type of incident that carries a weight.

Incident Category All of these Types of Incidents are Considered to be Violent Incidents	Weight
Homicide	100
Forcible Sex Offenses	60
Other Sex Offenses	45
Robbery	40
Assault with Serious Physical Injury	40
Arson	30
Kidnapping	30
Assault with Physical Injury	30
Reckless Endangerment	25
All Other Incident Categories Involving the Use of a Weapon	25
Weapons Possession	15

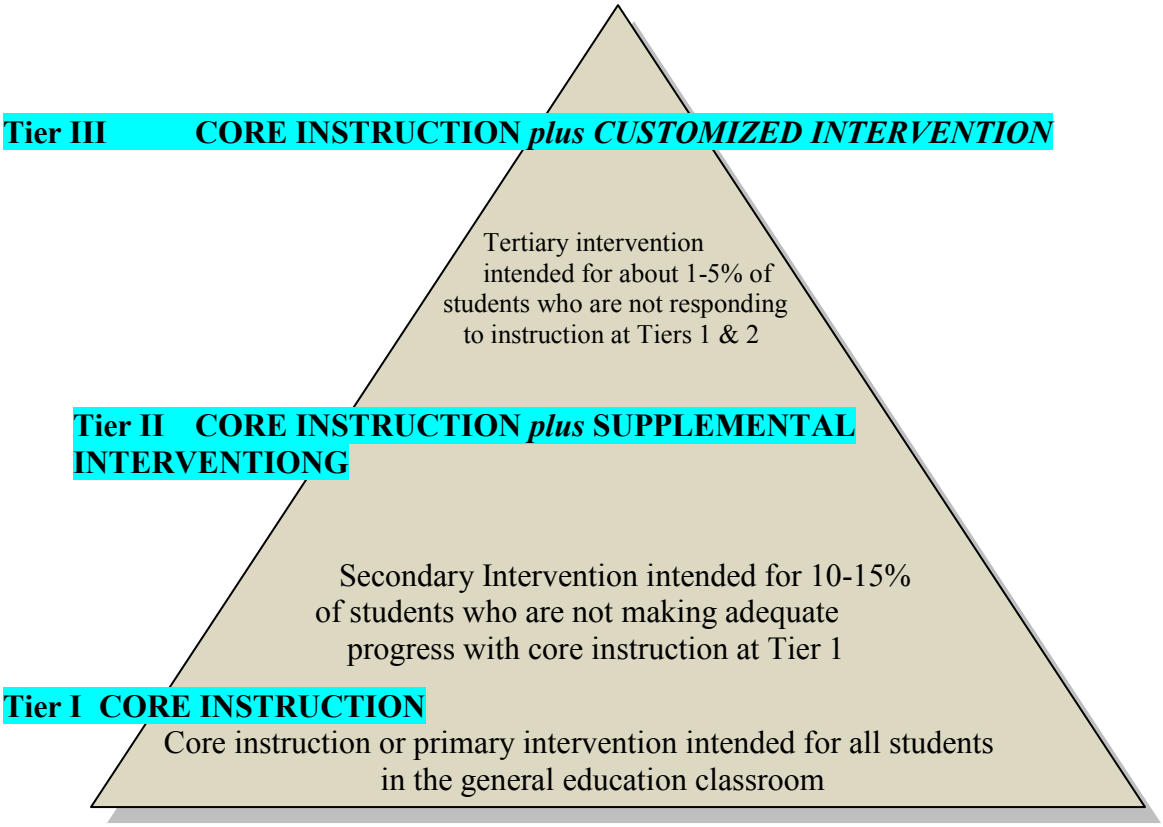
To calculate the SVI for each school, the incident counts for each type of incident are multiplied

by the weight for that type of incident and those products are added together to obtain an overall
weighted incident total. This total is then divided by the enrollment, which results in the SVI
score. Please see the SVI worksheet for an example of how the SVI is calculated.

Violent Incidents
Violent incidents are those that carry a weight greater than zero. (All of the types of incident listed in the table above are considered to be violent incidents.)
(*Adopted for New York State Information and Reporting Services*)

Appendix B

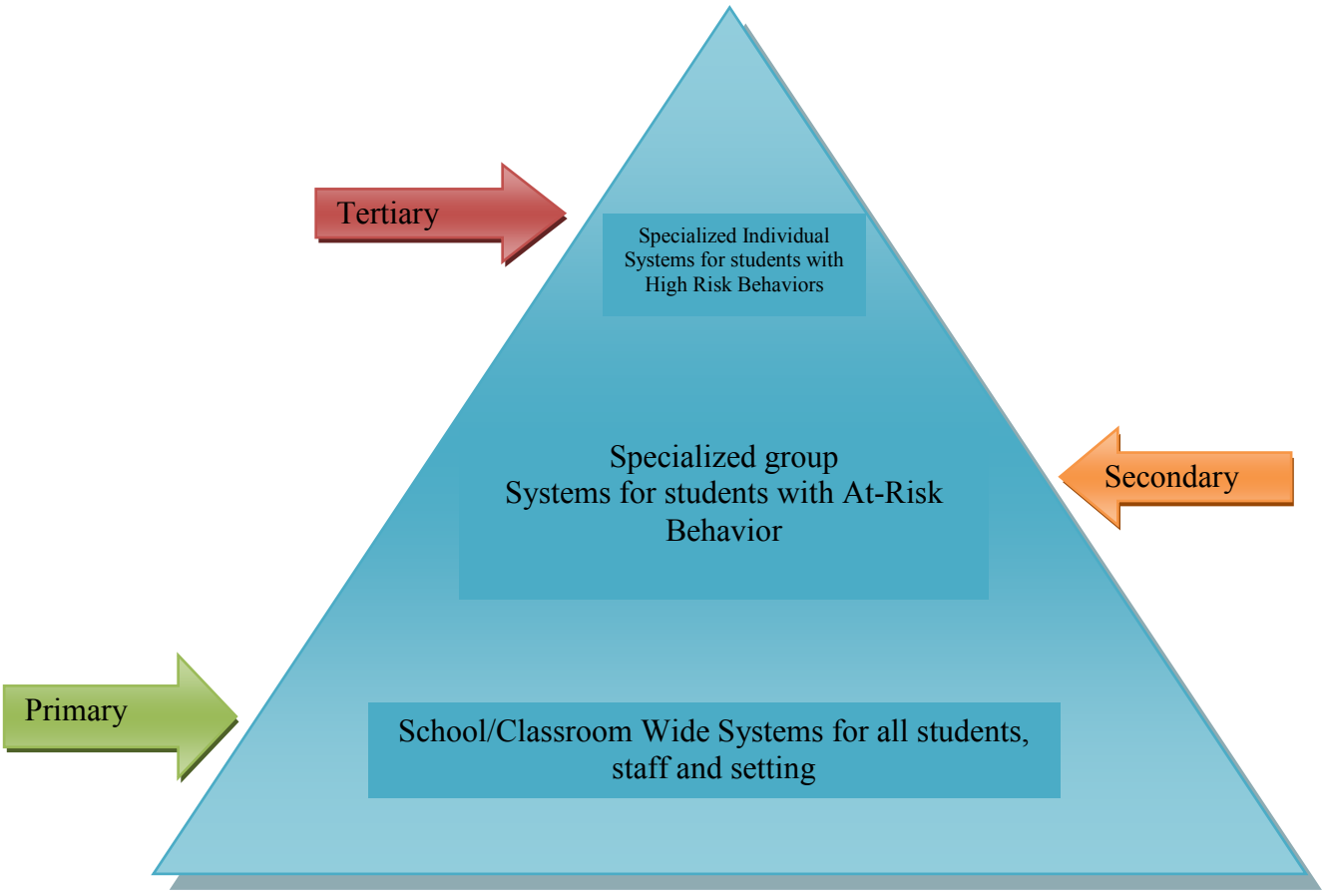
Response to Intervention Multi-level Prevention System



Adapted from New York State Response to Intervention multi-tiered early intervention and prevention model (NYSED, 2009); www.nysrti.org

Appendix C

Sugai and Horner Three- Tiered Model of Positive Behavior Interventions and Supports



Adapted from Positive Behavior Interventions and Supports, 2010. Retrieved August15, 2012 from http:// pdis.org

Appendix D

Co-Located Urban High School Longitudinal Progress Report Grade and School Environment

2008-2009 School Year

Co-located High Schools	Progress Report Grade	School Environment (Safety and Respect)	Student Population
Panther Academy	A	B	478
Tiger Academy	C	B	459
Cricket High School	D	C	1466
Leopard Academy	A	A	440
Vermont Academy	A	A	456
Brief Academy	N/A	N/A	423
Nasa Institute	A	C	406
Philanthropist Academy	C	C	451
Common Core Academy	B	B	464
Inference Academy	A	A	490
Learners Institute	A	A	215
All Roads High School	A	B	170
Direction High School	N/A	N/A	N/A
Grounds Institute	N/A	N/A	138
Lighthouse Academy	C	B	323

Knowledge and Career Institute	N/A	N/A	N/A
Picaso Academy	A	A	488
Linkage High School	B	B	380

2009-2010 School Year

Co-located High Schools	Progress Report Grade	School Environment (Safety and Respect)	Student Population
Panther Academy	A	B	507
Tiger Academy	C	B	470
Cricket High School	D	B	1399
Leopard Academy	B	A	471
Vermont Academy	A	A	486
Brief Academy	B	C	482
Nasa Institute	A	C	403
Philanthropist Academy	C	C	452
Common Core Academy	A	A	471
Inference Academy	A	C	550
Learners Institute	C	C	284
All Roads High School	N/A	N/A	155
Direction High School	N/A	N/A	N/A
Grounds Institute	N/A	N/A	138
Lighthouse Academy	C	C	323

Knowledge and Career Institute	N/A	N/A	N/A
Picaso Academy	A	A	504
Linkage High School	B	B	392

2010-2011 School Year

Co-located High Schools	Progress Report Grade	School Environment (Safety and Respect)	Student Population
Panther Academy	B	B	501
Tiger Academy	*N/A	N/A	387
Cricket High School	*N/A	N/A	1204
Leopard Academy	C	B	482
Vermont Academy	A	A	504
Brief Academy	C	C	470
Nasa Institute	N/A	N/A	382
Philanthropist Academy	C	C	423
Common Core Academy	N/A	B	471
Inference Academy	A	B	558
Learners Institute	B	D	291
All Roads High School	N/A	N/A	78
Direction High School	N/A	N/A	N/A
Grounds Institute	N/A	N/A	N/A
Lighthouse Academy	B	C	323

Knowledge and Career Institute	N/A	N/A	N/A
Picaso Academy	A	A	501
Linkage High School	B	C	365

*****_Closing schools do not receive progress report or school environment survey grade._

Appendix E

Frequency of Infractions by type Across School Years

Infraction	Weapon(s)	School Year 08-09	09-10	10-11	Total
Other Sex Offenses	With	0	0	0	0
	Without	10	4	6	20
Robbery	With	0	0	0	0
	Without	1	2	3	6
Assault With Serious Physical Injury	With	0	0	0	0
	Without	2	2	6	10
Arson	With	0	1	2	3
Assault with Physical Injury	With	1	0	1	2
	Without	18	13	14	45
Reckless Endangerment	With	3	0	1	4
	Without	5	13	2	20
Minor Altercations	With	6	2	4	12
	Without	153	191	225	569
Intimidation, Harassment, Menacing, or Bullying	With	2	2	2	6
	Without	46	67	74	187
Criminal	With	0	0	0	0

Mischief	Without	20	17	21	58
Larceny, or	With	0	0	0	0
Other Theft	Without	7	13	12	32
Threat		0	0	2	2
Alarm		1	3	2	6
Weapon Possession	Through Screening	25	21	19	65
	Under Other Circumstances	6	2	9	17
Drug Possession		6	17	16	39
Alcohol Possession		5	5	10	20
Other Disruptive		220	245	249	714
Total		537	620	680	1837

Appendix F

Descriptive Statistics for the Mean of Dependent Variable by PBIS Implementation and Infraction Group

PBIS Group	n	Min	Max	Mean	Std. Dev.	Skew	Kurtosis
Never implemented	3	9.67	63.33	43.44	29.41	-1.651	n/a
Implemented some years	5	17.33	65.33	41.33	21.06	-0.279	-2.553
Implemented all years	6	7.70	69.33	45.39	21.45	-1.200	1.616

Appendix G

Descriptive Statistics for the Dependent Variable by PBIS Implementation and Suspension Group

PBIS Group	n	Min	Max	Mean	Std. Dev.	Skew	Kurtosis
Never implemented							
Average suspensions	3	11.50	168.00	76.33	81.63	1.319	n/a
Implemented some years							
Average suspensions	5	16.33	88.00	42.17	31.76	0.924	-1.376
Implemented all years							
Average suspensions	6	2.50	68.50	41.08	22.45	-0.962	1.485

Appendix H

Descriptive Statistics for the Mean of Dependent Variable by PBIS Implementation School Progress Grade Group

PBIS Group	n	Min	Max	Mean	Std. Dev.	Skew	Kurtosis
Never implemented	3	9.67	63.33	43.44	29.41	-1.651	n/a
Implemented some years	5	17.33	65.33	41.33	21.06	-0.279	-2.553
Implemented all years	6	7.70	69.33	45.39	21.45	-1.200	1.616

Appendix I

Descriptive Statistics for the Dependent Variable by PBIS Implementation and School Environment Group

PBIS Group	n	Min	Max	Mean	Std. Dev.	Skew	Kurtosis
Never implemented							
Environment grade	3	1.00	2.50	1.83	0.76	-0.935	n/a
Implemented some years							
Environment grade	5	1.00	3.00	2.13	0.90	-0.578	-2.708
Implemented all years							
Environment grade	6	1.33	3.00	2.33	0.67	-0.450	-1.175

Appendix J

Results Table Depicting Results from Testing the Four Hypotheses

Hypothesis	Analysis	Dependent Variable	Independent Variable	Sig.
H 1	ANOVA	Number of infractions	PBIS implementation	.959
H 2	ANOVA	Number of suspensions	PBIS implementation	.479
H 3	ANOVA	School progress grade	PBIS implementation	.304
H 4	ANOVA	School environment grade	PBIS implementation	.669