THE EFFECTIVENESS OF SCHOOL-WIDE POSITIVE BEHAVIOR PROGRAMS IN GEORGIA MIDDLE SCHOOLS

by

Kristy Arnold

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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ABSTRACT

Kristy Arnold. THE EFFECTIVENESS OF SCHOOL-WIDE POSITIVE BEHAVIOR PROGRAMS IN GEORGIA MIDDLE SCHOOLS. (under the direction of Dr. Ackerman) School of Education, Liberty University, February, 2012.

Discipline issues and inappropriate student behavior in the classroom are issues that administrators and teachers throughout the country deal with on a daily basis and often lead to a loss of instructional time. This causal comparative study examined school-wide discipline programs and compared the behavior of students in schools using school-wide positive behavior management systems to the behavior of students in schools that do not implement school-wide programs based on the numbers of office referrals at each level of behavior. Three middle schools in one northwest county in Georgia were compared based on the presence of School-Wide Positive Behavior Interventions and Supports (SWPBIS). The Findings suggest that middle schools utilizing this universal discipline approach had significantly fewer serious, or level three behavior problems than non-SWPBIS schools.

Descriptors: School-Wide Positive Behavior Interventions and Supports (SWPBIS), discipline referrals, reinforcements, discipline levels

DEDICATION

This study is dedicated to my parents Charles and Peggy Rutland, who have always supported me in every aspect of my life. I have not always followed the straight and narrow path, but through their patient guidance and unlimited encouragement, I have been able to maneuver the twists and turns to a life filled with love and happiness! Thank you dad for believing in me and helping me to become strong and independent and mom for helping me to see that asking for help when you need it is not a weakness! I love you both!

I also want to dedicate this study to my wonderful husband, Jason, who without his love and support I would have given up a long time ago! He has been my biggest supporter and I can never thank him for all his encouragement! Thank you for being the love of my life! It is also dedicated to my two amazing children, Noah and Kendall who suffered "quietly" through all the hours mom spent in the office or kitchen working on the "paper!" It's finally here, mom is finished, and we are going Disney World!

ACKNOWLEDGMENTS

There are so many people who have helped to make this a successful journey! First, my family, Jason, Noah, and Kendall! Your patience, encouragement and love have provided me with the inspiration to keep pressing forward and never give up! You are all the best part of me!

I would like to thank the entire community of Liberty University! From the receptionist and registrars that answer the phone to the professors and administrators who help guide instruction. It is obvious that Liberty University is committed to providing a rigorous curriculum that is grounded in a Christian worldview. I am proud to be part of such a fine institution!

I have been blessed with an amazing dissertation committee! To Dr. Beth Ackerman, my dissertation chair, your patience, commitment, and advice has been especially appreciated throughout this process. I am especially grateful for your availability and constant encouragement! To Dr. Joy and Dr. Williams, thank you for your honest feedback to help make improvements to the dissertation.

To my editor, Dr. Toni Flanagan, thank you for not only being a great editor, but for helping me with all the details! I would also like to mention Dr. Jennifer Priestley at Kennesaw State University who helped support the statistical analysis in the study.

And finally, this journey would not have even begun if it were not for my traveling buddies! Thank you, Venita, Evie, Susan, Sharron, and Johnnie for holding my hand as we jumped off the cliff together! And most of all, thanks for never letting go – for your constant encouragement, feedback, and faithfulness! I love you all!

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LIST OF ABBREVIATIONS

Adequate Yearly Progress (AYP)

Center for Effective Collaboration and Practice (CEPA)

Differential Reinforcement of Incompatible behavior (DRI)

Economically Disadvantaged (ED)

Georgia Department of Education (GADOE)

Gun Free Schools Act (GFSA)

Individuals with Disabilities Act (IDEA)

In-School Suspension (ISS)

Limited English Proficient (LEP)

National Association of School Psychologist (NASP)

National Center on Response to Intervention (NCRTI)

No Child Left Behind (NCLB)

Out-of-School Suspension (OSS)

Response to Intervention (RTI)

School-wide Evaluation Tool (SET)

School-wide Positive Behavior Interventions and Support (SWPBIS)

CHAPTER ONE: INTRODUCTION

Student behavior problems are a challenge that many schools face, and they continue to remain a concern for school personnel (McIntosh, Campbell, Carte, & Zumbo, 2009). Discipline problems in school range from minor infractions such as chewing gum or refusing to complete homework to more serious behaviors including bullying, fighting, or destroying property (Muscott, et al., 2004). Dealing with the most minor of problems can consume up to "80% of a teacher's time in the classroom," (Scott, 2001, p. 88) leading to loss of instruction for the students. Faced with this dilemma, schools are searching for ways to decrease the number of problem behaviors and influence students to make better choices so they remain in the classroom and maximize instructional time.

Background

Since the 1960s, researchers have conducted studies to examine effective classroom management strategies in order to provide teachers the skills necessary to address classroom behavior problems (Gable, Hester, Rock, & Hughes, 2009). Recently, many of these researched strategies have been utilized by educational leaders to meet the requirements of legislative mandates placed on schools. The implementation of the *No Child Left Behind Act* (NCLB) in 2001 placed a rigorous set of accountability standards on public schools calling for an increase in the academic achievement of all students. This law mandated that by the year 2014 every child would be proficient in the areas of reading and math. In 2004, the *Individuals with Disabilities Education Act* (IDEA), added additional pressure to identify research based strategies to increase academic achievement and improve student behavior (George, White, & Schlaffer, 2007). In order

to adhere to these federal mandates, educational leaders at both the school and school system levels have been exploring school improvement strategies to implement in the areas of classroom management and student instruction to effectively meet these demands.

One shift that has been identified in the research on effective classroom management strategies is that of proactive management as opposed to reactive management (Gable et al., 2009). Traditionally, discipline in school has often been reactionary followed by a negative consequence; however, many schools today are recognizing the value of establishing preventive positive behavior interventions in the classroom environment and teaching behavioral expectations (Gable, Bullock, & Evans, 2006). Scott (2001) suggested that the key to reducing student discipline problems is the use of prevention in the form of a school-wide positive behavior management system. School-wide Positive Behavior Interventions and Support (SWPBIS) is one approach being proposed to reduce problematic behavior in schools. These proactive systems rely on teachers and staff members to establish and follow universal norms for student behaviors in all areas of the school, to explicitly teach and reward the expected behaviors, and to follow consistent consequences for student misbehavior. While SWPBIS is not a specific curriculum or program, it is a systematic approach to teaching and rewarding appropriate behavior, reducing negative student behaviors, and assessing the effectiveness of the school's interventions.

Social learning theory offers that behavior can be learned through observation or imitation of people, watching electronic media, or even reading books and is closely related to what we think of when we hear the term "behaviorism" (Miller, 2011, p.235).

Social learning theory supports the framework that schools can positively affect students' behavior by providing explicit examples of correct behavior and offering students sufficient time to practice these behaviors. An important part of behavior management is providing feedback so that the learner ascertains whether or not the behavior was appropriate. This feedback may also be referred to as a reinforcer, which in a school setting may be either tangible such as a piece of candy or a "token," or intangible which could be in the form of verbal praise (Wheatley, West, Charlton, Smith, & Taylor, 2009).

Problem Statement

Classroom teachers and school administrators continue to deal with disruptive student behaviors that lead to lost instructional time in the classroom. Current research suggests that schools following SWPBIS reduce the number of total discipline referrals in the school; however, there are few studies that examine which types of behaviors are reduced as a result of implementing a positive behavior management system. Additionally, there are few studies that compare similar schools that use SWPBIS to those that do not. Most studies identified in research have compared baseline data prior to beginning the program to the same school data after implementation (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004).

Purpose Statement

The purpose of this study was to examine methods in effective school-wide positive behavioral interventions and determine if there was a statistical difference in the types of behavior infractions for students in middle schools implementing SWPBIS to those that did not use these universal systems. The goal of this study was to add to the existing body of research on this topic and to provide new information that addresses the

specific types of behaviors that may be improved as a result of implementing school-wide positive behavior management systems at the middle school level.

Significance of the Study

The results of this study may benefit administrators and school improvement teams that wish to improve the overall school climate and culture of their building. Many schools rely on informal measures to determine the effectiveness of programs centered on improving student behavior (McIntosh et al., 2009). The results of this study may be used to help schools identify effective strategies in increasing positive student behaviors and help teachers use these strategies with more confidence. As positive student behaviors increase, more time is available for instruction. Research suggests schools that implement SWPBS over a two-year period show a decrease in office referrals and significant increases in student academic achievement on standardized state tests (Sailor, Zuna, Jeong-Hoon, Thomas, & McCart, 2006).

Additionally, research indicates that schools are still hesitant to adopt school-wide policies to address student discipline despite the promising results (Lohrmann, Forman, Martin, & Palmieri, 2008). The results of this research may support schools in their decisions to adopt school-wide positive behavior management plans and identify specific strategies for implementation that address specific discipline problems. Parker, Nelson, and Burns (2010) suggest the need for further studies in positive school-wide behavioral management systems that address specific types of behaviors using office referrals to measure "the effects of the intervention on low-incidence, high-impact behaviors" (p.825). These data could then be used to determine the effectiveness of specific strategies on desired behaviors. Finally, this study is significant as it has the potential to

serve schools wishing to employ research-based strategies to improve student behavior in the school setting through the development and implementation of a school-wide positive behavior management system.

Research Question

Current research identifies the need for additional studies that address specific behaviors affected by school-wide positive behavior management plans as well as identifying the effects of these management systems on rural settings (Parker et al., 2010). This study analyzed discipline referrals in three rural school settings to determine if there was a significant difference in the types of student behaviors in schools with and without school-wide positive behavior management systems. This causal comparative research study addressed the following questions:

Research question 1: Is there a significant difference in the percentage of students referred for level one, two, and three discipline referrals between SWPBIS and non-SWPBIS schools?

Research Question 2: Is there a significant difference in the total number of discipline referrals each year within each participating school?

Research Question 3: Is there a difference between schools SET scores and the percentage of discipline referrals in SWPBIS schools and non-SWPBIS schools?

Hypotheses

The following null hypotheses were tested:

Null hypothesis 1: There are no statistical differences in the total number of discipline referrals at level one, two, and three in SWPBIS and non-SWPBIS schools.

Null hypothesis 2: There is no statistical difference between the total numbers of discipline referrals each year within the same school.

Null hypothesis 3: There is no difference in the SET scores and the number of office discipline referrals between SWPBIS and non-SWPBIS schools.

Identification of Variables

In this study, several key variables existed as follows:

Independent Variable

The independent variables under investigation were the school management systems in three middle schools in a school system; SWPBIS and non-SWPBIS. The two middle schools implementing SWPBIS were purposefully selected due to the similarities in staff development, design, and implementation of the plan. Both schools modeled their school-wide plan based on the Positive Behavior Instructional Support (PBIS) program that was developed by the Institute on Violence and Destructive Behavior at the University of Oregon's Center for Effective Collaboration and Practice (CECP) (CECP, 2010). The third school does not utilize SWPBIS. This school employs traditional approaches to managing student behavior and does not follow a universal system to teach student expectations and consequences. All three schools are located in the same north Georgia school system and are required to adhere to the same Student Code of Conduct where student behavior levels have been defined (BCSS, 2010). Within-school demographic data as well as between-school data was collected and analyzed as part of this study to increase internal validity.

Dependent Variable

The first dependent variable in this study was the number and level of discipline

referrals recorded for each school. A discipline referral is an instrument used to record a student's misbehavior in school and may be given to students for one of three levels of misconduct. A level one behavior is considered minor and may be issued to a student for a chronic behavior such as being late to class, talking out of turn, chewing gum, or a dress code violation. Level one behaviors are not considered serious or dangerous behaviors; however, they are distracting to the class and interrupt the learning environment. These behaviors include talking out of turn, failure to follow directions, running in the halls, tardy to class, or not bringing materials to class. Often these behaviors are handled at the classroom level. These behaviors result in consequences such as after-school detention, parent conference, silent lunch, change in seating arrangement, or other loss of privileges. Chronic level one behaviors will often lead to an office discipline referral that will result in a level two consequence. Level two behaviors are considered to be more serious in nature, and some could be considered dangerous. These generally result in an immediate office referral and may include fighting, destruction of property, inappropriate language, disrespect toward staff members or skipping class. Level two behaviors often carry the consequence of in-school suspension (ISS), or short term out-of school suspension (OSS). In-school suspension occurs in a designated time-out area in the school where students report to complete class work for an assigned period of time. This time frame could be from one class period to several days depending on the infraction and the accumulated office referrals for a particular student. Level three office referrals are received when a student has been involved in a behavior that is dangerous to self or others. These are usually criminal behaviors that include the possession or use of illegal drugs or weapons, vandalism, assault, threats, and even bullying or gang behavior.

Consequences for these behaviors usually result in a long-term suspension from school and possible criminal charges through the Office of Juvenile Justice. Data were collected on the number and levels of office referrals reported at each school that resulted in a consequence of ISS or OSS.

Data were also collected on a second dependent variable to assess features that were in place at each school for establishing expectations for student behavior, as well as which conditions for student behavior warranted an office referral. The School-wide Evaluation Tool (SET) was administered to the staff at all three schools to examine discipline procedures in classroom settings, non-classroom settings, school-wide settings, and for individual students in need of individualized plans (Algozzine et al., 2010). These scores were used to determine the presence of a systems approach to school-wide behavior support in each school and whether a difference existed between each school's SET scores and the number of discipline referrals recorded at each school The SET survey has a Cronbach's alpha of .77, indicating an adequate reliability (Lassen, Steele, and Sailor, 2006).

Assumptions and Limitations

Assumptions

The researcher first assumed that students respond to positive interventions rather than to negative consequences, and ultimately want to do what is expected of them. Combining clear expectations with a positive reinforcement should lead to a reduction of behaviors that result in disciplinary action. The researcher also assumed that the schools in the study would have comparable discipline referral forms and similar behavior expectations for level one, two and three behaviors. Finally, the researcher assumed that

each school would be willing to participate in the study.

Limitations

In any causal comparative design, there are inherent limitations. First, the researcher had no control over the independent variable, as the school-wide positive discipline systems had already been established in the school settings. To control for this limitation, matching was used in order to identify two schools that used a management plan modeled after the same SWPBIS program. According to Gall, Gall, and Borg (2007), matching can be used "to equate two groups on one or more extraneous variables so that these extraneous variables do not confound the study of causal relationships involving the variables of primary interest" (p. 313). Not only was it important to match two schools that used the SWPBIS program, but the comparison school also needed to be matched for population demographics in order to increase the reliability of the study's findings. While matching the population demographics of the school increased the reliability of the study on the effects of the positive school-wide behavior management system, it limited the ability of the researcher to generalize the results for all middle school settings.

A second limitation of the study was experimenter effect, or the differences in the teachers or administrators in each school. This study did not take into account the training in classroom management that the teachers in the control schools experienced or the number of years of teaching experience. It is possible that more experienced teachers had less discipline problems in their classroom than first year teachers. To address this potential problem, the researcher provided information regarding teachers' years of experience, as well as recorded numbers of discipline referrals for each school in the

study.

An additional limitation of this study was instrumentation validity. While data were collected from all schools regarding office referrals, the schools may have used a different instrument for recording student discipline infractions. This could have added an additional level of experimenter effect because if the referral reports were different, teachers and administrators may not have judged behaviors in the same manner. To address this issue, the researcher used discipline information that was entered into the student information systems for each school. Administrators in the state of Georgia enter state codes that identify specified behaviors, and all student information systems in the state are required to use the same reporting codes for recording student discipline infractions (GADOE, 2010). Additionally, the researcher addressed how the teachers and administrators in the study used and issued office referrals. Irvin et al. (2004) suggested that the validity of using office referrals increases when a school implements discipline procedures in a more standardized manner. Data collected from the SET survey provided a measurement for evaluation of the consistency and effectiveness of the school-wide system in place at each school, and both within-schools scores and between-school scores were compared.

Research Plan

This quantitative study employed a causal comparative design to determine whether there was a difference in the types of discipline behaviors at each grade level in middle schools with and without positive school-wide behavior management plans, by examining the number of discipline referrals at each school. The purpose of the study was to identify a cause-and-effect relationship based on differences in dependent

variables where only one group was exposed to the independent variable (Gall, Gall, & Borg, 2007, p.306). The researcher sought to determine if there was a difference in the types of behaviors: level one, level two, and level three, and the total number of negative student behaviors in SWPBIS schools and non-SWPBIS schools. This design was justified because the researcher was not able to manipulate the independent variable in the study because the schools under study had already implemented the school-wide positive behavior management plan. Archived student discipline data was used for analysis.

The researcher collected and analyzed student discipline data each year, beginning with the baseline year from the two SWPBIS schools. These were then compared to the traditional non-SWPBIS school that did not follow a preventative universal plan. Data were collected yearly and recorded in an Excel spread sheet, identifying the number of discipline referrals for each school and the level of the discipline infraction. For the purposes of this study, only discipline referrals that resulted in ISS or OSS were collected because these data are required for state reporting. A Chi-Square test was used for this study to determine if the level of student referrals and participation in SWPBIS were related. A Chi-Square test is a nonparametric test to determine whether "data in the form of frequency counts are distributed differently for different samples" (Gall, Gall, & Borg, 2007, p.325). The two independent variables under study were the SWPBIS schools and the non-SWPBIS school. The categories that were considered in this study included the three levels of discipline referrals at each school. Contingency tables of observed and expected frequencies were constructed and an analysis was conducted to determine if a statistical difference existed between the

comparison schools on levels of discipline referrals, as well as a descriptive analysis to determine differences in SET scores.

Definition of Core Terms

Definitions of core terms used throughout this study are provided for clarity:

Discipline Referral: A form documenting a student's inappropriate behavior that requires an administrative consequence.

Expulsion: Consequence of a student being expelled from a public school beyond the current school semester or term.

In School Suspension (ISS): Consequence of exclusion of a student for a minimum of one class period in an alternative learning setting.

Out of School Suspension (OSS): Consequence of student being removed from the public school setting for a prescribed amount of time not to exceed more than 10 days.

Non-SWPBIS: Refers to schools that do not implement School-wide Positive Behavioral Interventions and Supports.

SWPBIS: Refers to schools that implement School-wide Positive Behavioral Interventions and Supports. SWPBIS provides a framework to teach and encourage positive skills and behaviors to students by implementing a system that focuses on teaching, practicing, and encouraging pro-social skills and behaviors (PBIS, 2011).

CHAPTER TWO: LITERATURE REVIEW

The development of school improvement practices and procedures have been part of the educational process throughout the history of public schools, and educators continue to search for strategies that improve the learning environment. Parents as well as teachers expect their schools to be safe, orderly environments in which children successfully learn how to apply academic and social skills. According to Maslow, before students can focus on academics, their safety needs must first be met (Henze, Kathz, Noret, Sather, & Walker, 2002). Educational leaders are mandated to meet the safety needs of children, which includes identifying strategies and programs to help them meet those demands.

The purpose of this quantitative study was to examine methods in effective positive school-wide behavioral interventions and determine if there was a difference in the types of behavior problems exhibited in middle school students as a result of these behavioral intervention strategies. This was accomplished by determining if there was a significant statistical difference between the types of student discipline behaviors between two schools that implemented school-wide positive management behavior systems and one school that did not use these school-wide methods.

This chapter outlines the theoretical framework supporting this study and examines the historical background of discipline in schools. Current trends and issues that have led to the development of positive behavior interventions in schools to help maintain a safe and orderly learning environment for students will also be identified and discussed. These school-wide positive behavior interventions and supports are researched-based strategies supported and mandated by legislation. Teacher perspectives

on classroom disruptions and positive behavior interventions are examined to determine their effects on school culture and improvements in student behavior. The review of literature concludes with a discussion of implications for educational leaders employing strategies to reduce student discipline problems in a school-wide setting.

Theoretical Framework

Theoretical frameworks are critical in both deductive and exploratory studies (Gall, Gall, & Borg, 2007). Research studies in social and behavioral sciences require a rationale, or a conceptual model, for how one makes "logical sense of the relationships among several factors that have been identified as important to the problem" (Radhakrishna, Yoder, & Ewing, 2007, p. 692). Social learning theory provided the theoretical framework for this research study, which describes "the process by which society attempts to teach children to behave like the ideal adults of that society" (Miller, 2011, p. 233). Miller suggested this theory, which was influenced by Bandura during the 1960s and 1970s, is derived from learning theory and is often linked with the terms "behaviorism" or "behavior modification" (p.224).

In 1913, while instructing at Johns Hopkins University, prominent psychologist John Watson made a declaration that "the goal of psychology should be to predict and control overt behavior, not to describe and explain conscious states" (Miller, 2011, p.225). This objective form of psychology became known as behaviorism, where scientists study behavioral responses caused from environmental stimuli in order to explain specific behaviors. Learned behaviors have been traditionally classified into two categories: operant and classical conditioning. Much of Watson's focus was concerned with classical conditioning and can be attributed to the work of Pavlov's behavioral

studies using dogs (Cooper, 2009). Classical conditioning refers to "the idea that we develop responses to certain stimuli that are not naturally occurring" (Heffner, 2001, para. 3). In Pavlov's study, an example of a naturally occurring stimulus would be to salivate when food is placed in the mouth, thus creating an unconditioned response to an unconditioned stimulus. He found that when pairing a conditioned stimulus, such as a dinner bell, with an unconditioned stimulus, food, then eventually a conditioned response will occur with a conditioned stimulus. The conditioned response of salivating will eventually occur with the conditioned stimulus of the bell.

Extending to human studies, one of the most famous experiments of classical conditioning to produce a conditioned response with children was conducted by Watson in 1917. The "Little Albert" experiment elicited a conditioned fear of white rats in an 11-month old boy by placing a white rat in front of the child and then producing a painfully loud sound when the child reached for the rat, causing the child to cry. Eventually, the child began to cry at the sight of the rat before the unconditioned stimulus of noise was presented (Miller, 2011). According to Watson (1924), children were moldable like clay as illustrated in his famous quote:

> Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select – doctor, lawyer, artist, merchant, chief, and yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestor (p.104).

Other behavior learning theorists such as Skinner believed "behavior is the interaction of biology and the environment over time," (Cautilli, Rosenwasser, &

Hantula, 2003, p. 238), and behaviors are shaped by reinforcers which are "anything that completes the function from mastery to control, from tangibles to sensory enjoyment to social praise" (p. 238).). This type of conditioning, known as operant conditioning, refers to individuals behaving in response to reinforcers based on past consequences. While classical conditioning begins with a reflex, operant conditioning is learning due to the natural consequences of one's actions. These consequences can be determined by positive reinforcements or negative consequences.

Skinner is noted for his research in behavior modification and is considered the most influential psychologist of the 20th century (Haggbloom et al., 2002). Behavior modification is the attempt to change a child's inappropriate behavior by using a behavior modifier or reinforcement. "A behavior modifier changes the reinforcement contingencies so that desirable behavior is reinforced and thereby maintained while the undesirable behavior is ignored and thereby weakened" (Miller, 2011, p.299). This method of behavior management, often used by teachers, is called "planned ignoring." According to Miller (2011), this method is used when a teacher ignores a student's shout out in class, signaling to the student that the inappropriate behavior will not elicit the desired response from the teacher. Many school-wide management systems follow this approach, and students "caught being good" are given tangible rewards to reinforce desirable behaviors, thus focusing attention on the positive behaviors. Research shows that use of token reinforcements as a means of exchange for something of value to a student is an effective strategy for managing student behavior (Wheatley et al., 2009). In a study of 200 first through fifth-grade students in a rural elementary school, Wheatley et al. concluded that three inappropriate behaviors in the lunchroom were dramatically

reduced by using tokens to reinforce appropriate target behaviors of students in the lunchroom: (1) littering decreased by 96%, (2) inappropriate sitting decreased by 65%, and (3) running decreased by 75% . In this study, the teachers observed and recorded the number of targeted behaviors as they occurred prior to implementing the intervention. The students were then taught the appropriate lunchroom behavior and given rewards when the desired behaviors occurred. In this experiment, Wheatley et al. found that even though the rewards were slowly reduced, the desired behaviors of the students continued.

Vicarious Reinforcement

While social learning theory is similar to operant conditioning, in that reinforcements are present, it differs somewhat in its approach to the use of reinforcements. Social learning theorists posit that students will imitate the behaviors of others based on the reinforcements they see others receiving, a process that Bandura called vicarious reinforcement (Miller, 2011). According to Fox and Bailenson (2009) vicarious reinforcement suggests that "individuals need not experience rewards or punishments themselves in order to learn behaviors; rather, they can observe and interpret the consequences experienced by a model and make inferences to the likelihood of incurring these outcomes themselves" (p.3). While these behaviors may be the result of observing another child receiving positive reinforcement, the reinforcement itself is not necessary for acquiring specific behavior. Thus, learning occurs simply by observing the behavior of others.

Research exists to support that children often imitate or model behavior, and the likelihood becomes stronger when the model being imitated is admired or the model is similar to the observer (Rudolph & Langford, 1992). This is especially significant to

schools that are developing systems for behavior management. Students need strong role models who are providing clear, explicit expectations, as well as opportunities to see appropriate behavior being modeled. Many schools offer peer helpers to new students arriving to the school. The behavior these students model may be a strong indicator of how the new student will perceive they are to act in the same settings. Teachers must be very careful when applying this theory, as there could also be consequences for observing a student who "gets away" with improper behavior as they are "quickly imitated as well" (Miller, 2011, p.234). This planned ignoring of inappropriate behaviors is used by teachers to eliminate the behavior from recurring by sending a message that the student will not elicit the desired response from the teacher (Gable et al., 2009). An example of planned ignoring would be a student shouting out answers in class without raising a hand or being granted permission to answer. The teacher would then call on the student who followed procedures and praise the desired behavior. Current research suggests that teachers who use planned ignoring as a method for reducing negative behavior should do so in conjunction with differential reinforcement of the negative behavior so that the acceptable behavior is increased (Scherermann & Hall, 2008).

Differential Reinforcement

A strategy known as differential reinforcement can also be applied to alleviate incompatible behavior. Differential reinforcement of incompatible behavior (DRI) is a procedure where the behavior "reinforced in the greater amount and more frequently" will become dominant (Rudolph & Langford, 1992, p.115). For example, if talking during reading time is the behavior identified as disruptive, then being on task and reading silently is the desired behavior that should be reinforced. The teacher will then

teach and reinforce this behavior, thus increasing the desired behavior and decreasing the negative behavior (Wheatley et al., 2009). In a study conducted by Zaghalwan, Ostrosky, & Al-Khateeb (2007) of third and fourth-grade students from eight different elementary schools, DRI was used to increase the attentive behavior of 60 students who were identified with attention deficit hyperactivity disorder ADHD. These students were randomly assigned to groups and placed in a treatment and control group. The treatment group received smiley faces for appropriate behaviors that were displayed during an instructional lesson and the control group did not receive any reinforcement. The researchers found that the appropriate behaviors were more prominently displayed in the experimental group, suggesting DRI was an effective intervention for increasing positive behaviors. Teachers armed with this knowledge may be more successful in creating a positive atmosphere in their classrooms and extinguishing negative behaviors. By consistently and continuously teaching and reinforcing behavior expectations for student behavior throughout the school environment, undesired student behaviors may decrease and positive behaviors may increase (Zaghalwan, Ostrosky, & Al-Khateeb, 2007). Wong (1991) acknowledged,

> "For a child to unlearn an old behavior and replace it with a new behavior, you need to repeat the new behavior on the average 28 times. Twenty of those times are to eliminate the old behavior and eight of the times are used to learn the new behavior" (p.71).

Social Learning Theory

Because social learning theory explains behavior as an interaction of behavioral, environmental, and cognitive effects, theorists also believe that behavior can be learned

not only by imitating the actual observed behavior of others but by other processes such as "other people, books, and electronic media" (Miller, 2011, p. 235). Though teachers can be positive peer models, effective teachers explicitly teach expectations. Not only do they provide clear directions, they provide students with opportunities to practice the desired behaviors. The more familiar students are with rules, procedures, and consequences, the less likely they are to choose inappropriate behaviors. Whitaker (2004) suggested that effective teachers and programs set expectations that are "clearly established, focus on the future, and are consistently reinforced" (p. 20). While both positive behaviors are rewarded and negative behaviors are met with a consequence, Whitaker suggested implementing practices that place the emphasis on preventing behaviors before they happen rather than punishing behaviors after the act. Thus students will likely imitate positive behaviors by observing praise and avoid behaviors that they have seen lead to negative consequences.

Social learning theory relates to the development of a school-wide behavior management system, in that both are focused on teaching students acceptable behavior through modeling and providing positive feedback for desirable behaviors. Working together, staff members establish specific guidelines for students to follow and provide time for them to practice correctly and learn these behaviors. In addition to providing practice, students receive immediate feedback on their actions. Correction and remediation are instantaneous for incorrect behaviors, as well as praise and rewards for acceptable behaviors. Effective school-wide behavior management systems that encourage strong behavior models, clearly stated expectations with practice, and school-wide reinforcement plans, help shape student behavior in the school setting (Simonsen,

Sugai, & Negron, 2008). George et al. (2007) argued that effective school-wide positive behavior management programs follow three basic guidelines supported by social learning theory: (1) adults modeling appropriate behaviors, (2) providing students with the time and opportunities to practice desired behaviors through the school, and (3) ensuring teachers and staff recognize students for appropriate behaviors with verbal praise or other reinforcements.

Issues Surrounding School Discipline

Educators continue to face challenges caused by disruptive student behavior in schools (McIntosh et al., 2009). School safety is considered a primary concern for schools, and serious behavior problems including drugs, violence, and weapons lead to a dangerous and unsafe environment in which to learn. Teachers and administrators deal with a variety of discipline problems in schools ranging from minor infractions such as excessive talking, being tardy for class or chewing gum, to more serious behaviors including fighting, bullying, or possessing drugs and weapons (Muscott et al., 2004). Scott (2001) estimated that these problems can consume up to 80% of an educator's time in class, which takes away from academic instruction. In addition to lost instructional time in the classroom, students are often removed from the class. Some behaviors warrant in-school suspension, a time-out area within the school setting, or suspension from school altogether. While the intent of suspension is to improve or eliminate the negative behavior which led to the suspension, Skiba (2002) suggested that suspensions and expulsions from school do not improve student behavior. Sugai and Horner (2006) cited several research studies documenting the "neutralization or elimination of risk factors and enhancing protective factors to prevent occurrence of problem behavior, reduce its

incidence and prevalence, and enhance academic gains" (pp. 245, 246) through the effective use of school-wide discipline practices.

History of School Discipline

Traditional approaches to student discipline in school have most often been reactionary methods such as corporal punishment, detention, suspensions, and expulsions. Although corporal punishment has been a highly debated form of discipline in schools, during the 19th and most of the 20th century it was an accepted form of punishment for unacceptable behavior (Middleton, 2008). Corporal punishment is defined as a physical act to inflict pain such as spanking, paddling, or shaking that act as a punishment for a child's inappropriate actions (*Corporal Punishment in Schools*, 2010). Historically, governments, parents, religious leaders and educators have believed that "corporal punishment was righteous and efficient" and "used appropriately, it would secure or restore order, discipline the body, and motivate the mind, imbue religious and moral lessons, and both punish and prevent aberrant behavior" (Axelrod, 2010, p.262).

Scripture also provides validation for the physical discipline of children, warning parents and adults "Foolishness is bound in the heart of a child; but the rod of correction shall drive it far from him" (Proverbs 22:15, New International Version). Recent research from the National Association of School Psychologists (NASP) regarding corporal punishment indicates that many students who have received these types of disciplinary measures have reported problems with depression, fear, and anger, and are often more prone to dropping out of school (NASP, 2006). Research supported by Farmer and Lambright (2008) has also shown that students who have been exposed to physical forms of discipline are more prone to exhibit violence toward their peers, teachers, and family

members and consider violence as a legitimate solution for handling problems. The American Civil Liberties Union of Michigan (2010) found that states that frequently use corporal punishment perform worse academically than those states that have banned the practice. In light of this evidence, corporal punishment is still permitted in 21 states, while the others have outlawed this form of discipline and suggest that lack of resources such as training in effective positive discipline interventions is a key component in the continuation of this form of school behavior management (Human Rights Watch, 2008).

Furthermore, The National Center for Culturally Responsive Education Systems (2006) found that other reactionary forms of punishment such as detentions, suspensions, or expulsions result in isolating the students from school, thus limiting their ability to learn from experiences that may lead to a positive behavior change. The assumption underlying these traditional discipline approaches is that responding to negative student behavior with "increasingly severe consequences will teach students that their unruly behaviors are unacceptable and will not be tolerated" (Sugai & Horner, 2006, p.246). Liaupsin, Jolivette, & Scott (2005) stated these interventions are "reactive, exclusionary, and ineffective" (p.488) methods for handling student discipline problems in schools. In addition, Turnbull et al. (2002) argued that school discipline problems actually increase in environments where only reactionary discipline policies that lead to punitive punishments are utilized. Research conducted by McCord (1995) and Shored et al. (1993) indicated that students with the most severe behavior problems were most likely to be unresponsive to these traditional discipline methods and agreed that occurrences of negative behaviors would only increase.

It has been estimated that 90% of all teacher disciplinary action in the past consisted of a negative consequence or reprimand (Colvin, Sugai, & Patching, 1993). In more recent years, there has been a shift in classroom management from focusing on punishment, to implementing preventive classroom interventions that identify predictable classroom behavior problems and instruct students in proper classroom behavior (Gable et al., 2010). These strategies are designed to reduce negative student behavior by instructing rather than punishing, which has been shown to increase the amount of student self-regulation and decrease the amount of negative student behavior in the classroom (Van Acker, 2007).

For the past 40 years researchers have studied the effects of how different forms of discipline have impacted classroom environments and student behavior (Gable et al., 2010). The results of these studies have impacted how courses in classroom management have been written and planned in order to prepare current and future teachers in the effective management of student behavior. The latest research studies, along with federal and state guidelines have formed the basis for how educators implement discipline measures in today's classrooms.

Legal Mandates

Federal and state courts have played a key role in how administrators and teachers discipline students in school since the indoctrination of *in loco parentis* in the early 1900s (Conte, 2000). *In loco parentis*, meaning in place of the parent, and derived from English common law, implies that "teachers and administrators have a duty to see that school order is maintained by requiring students to obey reasonable rules and commands, respect the rights of others, and behave in an orderly and safe manner when at school" (Yell &

Rozalski, 2008, p.8). This legislation provides local administration with the authority to discipline students in their care at school, but also suggests that students are aware of the expectations for their behavior. In 1975, the Supreme Court ruled in Goss v. Lopez to grant students due process, meaning students must have the opportunity to hear charges against them and be provided with the opportunity to explain their version of the facts before a disciplinary action was enforced (Yell, 2006).

During the 1980s much of the nation's political climate called for a serious approach to crime and more severe punishments for adult law breakers with specific attention to violent crimes involving drugs and guns (Rice, 2009). In 1994, in response to incidents of deadly school violence, Congress passed the Gun-Free Schools Act (GFSA), which mandated each state develop and pass legislation requiring any student who brings a gun or weapon to school be expelled for no less than one year. The GFSA resulted in a multitude of zero tolerance policies throughout the United States public school systems (Dupper, 2010). Rice (2009) argues that while the federal law bans *weapons* from schools, several states have expounded on this to include plastic guns, squirt guns and miniature replicas such as key chains, leading to an emphasis on punishment which is "severe and certain" (p.559). According to Rice, zero tolerance policies have contributed to an increase in the number of students expelled from public schools. In addition to zero tolerance for weapons, schools are also including other categories of negative behaviors in this policy, such as disrespect and insubordination, leading administrators to use zero tolerance as a means to "relinquish responsibility for students with behavior problems" (Martinez, 2009, p. 154). These zero tolerance policies have also been highly criticized by parents and the media, who perceive that educators have taken common

sense out of the equation and replaced it with discipline practices that "criminalize student behavior" and create school cultures of fear and social control (Giroux, 2009, p. 67).

While there has been little research to support or refute the effectiveness of these policies on school violence as they were intended, there have been studies to show that the frequent use of suspension does not deter the behavior of students who have been suspended, and the students return to school continuing the same or even more disruptive behaviors leading to additional suspensions (Christle, Nelson, & Jolivette, 2004). Loss of instructional time leads to negative consequences in academic performance, which is strongly correlated to an increased student drop- out rate (Skiba, 2000). Fenning and Bohanon (2006) and Skiba and Rausch (2006) reported that Hispanic and African American students were suspended at three times the rate of white students, contributing to the high number of drop-outs in these minority groups. Martinez (2009) suggested that as an alternative to zero tolerance policies school leaders should develop proactive and preventive interventions for individual classrooms and school-wide implementation that address developing a positive school climate and a graduated system of leveled school discipline. This graduated system for school discipline may involve students receiving a less severe form of punishment for a minor infraction compared to a more serious discipline problem. For example, a student skipping class would receive a less severe punishment than a student who was involved in bullying another student at school.

The No Child Left Behind (NCLB) legislation of 2001 brought about new mandates for schools in the area of both academic success and in character development of students. This federal mandate, with bipartisan support, requires that all students

perform at proficient levels as measured by standardized state assessments in the areas of reading and mathematics. This legislation holds schools responsible for closing the achievement gaps in student performance between subgroups in the general school population and subgroups of students with disabilities, minority groups, and those groups that are considered economically disadvantaged. For the first time schools would be judged on "student outcomes rather than educator intentions" (Muhammad, 2009, p. 9).

In addition to closing the academic achievement gap, NCLB includes provisions for increasing student attendance and improving the overall culture and climate of educational facilities. This legislation mandates that states provide parents with the option of transferring their child from a school if it is identified as being persistently dangerous or if the child becomes a victim of a violent crime while in the custody of the school (U.S. Department of Education, 2010). This stipulation of the law, also known as the Unsafe School Choice Option, requires that states define the meaning of *dangerous* and develop policies for improving student behavior and disciplinary action. While all states have worked to define exactly what constitutes a dangerous school, many of those definitions are ambiguous, and, as a result, several schools that have unusually high rates of violent student behavior fail to offer school choice (Gastic & Gasiewski, 2007).

Since the tragic events that took the lives of 15 students and teachers in Columbine, Colorado in 1999, state and local school systems have been charged with increased responsibilities in educating students not only in academics but also in character development. In April 1999, Georgia Senate Bill 74 was signed and put into law (GADOE, 2010). This act states that schools "shall prepare a school safety plan to help curb the growing incidence of violence in schools, to respond effectively to such

incidents, and to provide a safe learning environment for Georgia's children, and teachers, and other school personnel" (GADOE, 2010, p.1). In a study to compare perceptions of school superintendents in Georgia on the topic of violence prevention, Ballard and Brady (2007) found an increase in the number of safety measures implemented in schools, such as cameras in schools and busses, searches by drug dogs, and the implementation of school resource officers. While the superintendents in the study felt safety was still a priority in schools, there were also fewer reports of violent crimes, and the number of gun removals had been drastically reduced since the implementation of the new laws (Ballard & Brady, 2007).

The reauthorization of the Individuals with Disabilities Education Act (IDEA) of 2004 included a new approach for providing interventions for students who were being identified as at risk for academic or behavioral problems. Response to Intervention (RTI), a tiered model utilizing research-based interventions to address specific learning or behavioral problems, was included in the IDEA 2004 as a way to reduce the number of students incorrectly labeled as disabled and to "encourage appropriate use of evidence-based instruction across tiers" to meet the needs of all students (Fuchs & Fuchs, 2006, p. 94). The National Summit on Learning Disabilities in 2001 suggested that RTI was the most promising method for identifying eligibility of students with learning disabilities, and similar recommendations were made by the National Research Council Panel on Minority Overrepresentation and the National Research Center of Learning Disabilities (Shores & Chester, 2009).

The RTI model is founded on two separate research studies that began in 1977. Bergan conducted research in the area of behavior problem solving and is primarily

responsible for the Problem Solving Model of RTI, and Deno and Mirkin's study focused on students who were academically at risk, which produced the Standard Protocol Model (as cited in Shores & Chester, 2009). In Deno and Mirkin's study, students who were identified as academically at risk for reading problems were assessed to identify a specific learning problem. Once the problem was identified, a plan was created, and specific measurable goals were created to address the problem. Strategies that included research-based instructional strategies were implemented in a small group or independent setting, and then frequent assessments were provided to measure progress. Teachers assessed whether the learner was responding to the interventions, and then made decisions whether to continue the current intervention or to move up the tier for more intensive interventions (Shores & Chester, 2009).

In Bergan's study, a behavioral problem solving process was utilized by observing and measuring inappropriate behaviors of students in the classroom setting. The student's behavior was observed in class, and then a team was assembled to target specified behavioral goals. The team implemented a plan with specified expectations for student behavior, and then improvements in behavior were measured by comparing current behavior to the stated goals (Shores & Chester, 2009).

While these RTI models are different in origination of the problem under study, both are acceptable forms of planning for intervention and use the three-tiered approach. The National Center on Response to Intervention (NCRTI) uses the following definition for RTI:

> Response to intervention integrates assessment and intervention within a multilevel system to maximize student achievement and to reduce behavior

problems. With RTI, schools identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with learning disabilities. (NCRTI, 2010, p. 2)

The RTI model is often called a pyramid of intervention and Figure 2.1 provides a visual model of the pyramid with the flow of suggested interventions in each level (Shores & Chester, 2009, p.7).

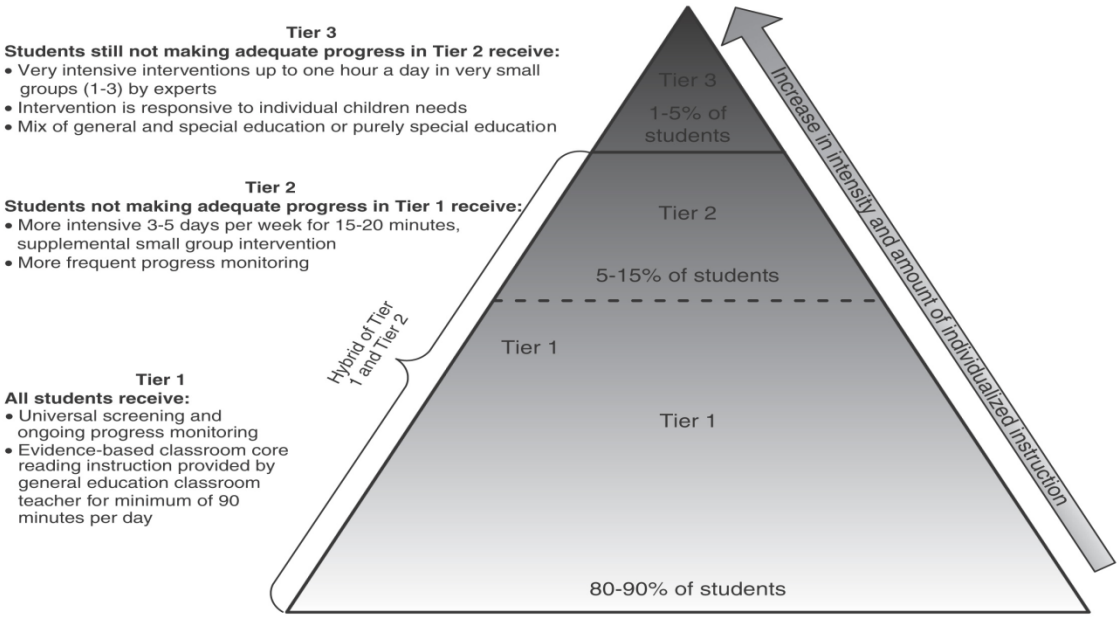

Figure 2.1. Pyramid of Response to Intervention

The first level, or base, of the pyramid represents interventions that are used for all students in the building. This is the instruction that all students receive in the regular classroom setting. An RTI behavior model at Tier 1 would focus on a behavior set that allows for all students to be successful in the general curriculum (Shores & Chester, 2009). In this setting, all students would be taught the behavior expectations that are expected throughout the school, as well as the system for rewards of appropriate behavior

and consequences for negative behavior (Barnett et al., 2006). Ideally, this base level should apply to approximately 80% of the students in the building (Sandomierski et al., 2007).

Students who have difficulty following the set rules and guidelines that have been explicitly taught to all students are identified and carefully examined as to their specific behavior patterns and difficulties. These students are recommended for the second tier of intervention. Generally, these behaviors are identified by teacher observations, classroom discipline checklists, office discipline referrals, and by studying the behavior patterns of students. Noting the time, setting, location, frequency, and consequence can help to identify successful interventions (Shores & Chester, 2009). Once patterns have been established, teachers can discuss a plan of action that may involve groups of students, one-on-one intervention, or an "embedded" set of "classroom procedures in for individuals or groups of children" (p. 26). Often these students are monitored by a teacher checklist or individual behavior cards. The teachers check the cards at regular intervals to determine if the strategies are successful based on short and long term goals (Fairbanks, Sugai, Guardino, & Lathrop, 2007). According to Tidwell et al. (2003) these interventions are expected to influence 10-20% of the students positively. In a study to investigate the effects of a Tier 2 intervention to target specific discipline problems in a small group, Sherrod, Getch, & Ziomek-Daigle (2009) found a decrease in negative behaviors of students who participated in the small group intervention.

Continuing the RTI model, Tier 2 students who do not show improvement in academics or behavior are often placed at the next level, Tier 3, of the intervention process. While many of the Tier 2 interventions may still be utilized, more specific

checklists are generated to target individualized plans and monitoring happens more frequently to collect data and check for progress (GADOE, 2010). A recent study to investigate individualized plans to improve student behavior revealed significant improvements in behavior in nine out of ten students and suggested that when the individualized goals are agreed upon by both teacher and student, the outcomes are particularly successful (Thompson & Webber, 2010).

Teacher Perceptions

Marzano (2003) conducted a meta-analysis of educational research on effective instructional practices that indicated the number one factor affecting student learning is the teacher in the classroom. This research suggests the importance of investigating teacher perspectives and views regarding school practices in order to "maximize the learning experience of all students" (Sutherland, 1994, p. 3). A study conducted on school climate in 20 Chicago schools revealed that 59% of teachers surveyed reported climate and discipline were problems, and they faulted organizational structures within the school (Davidson as cited by Sutherland, 1994). In a separate study related to teacher burnout, researchers suggested "contextual factors such as the school's organizational climate or the level of disorder within the school" contribute to low teacher efficacy and negative school climate (Pas, Bradshaw, Hershfeldt, & Leaf, 2010, p. 13) and suggested restructuring of organizational services and management practices to improve teacher effectiveness and the school environment.

Though the implementation of these strategies suggests positive results such as a decrease in discipline referrals and an increased amount of instructional time, many teachers are reluctant to adopt new school-wide programs regardless of the results. A

study conducted to examine resistance to school-wide positive behavior supports found teacher resistance was attributed to four conditions: (a) lack of administrative support, (b) skepticism of need, (c) hopelessness of change, and (d) philosophical differences (Lohrmann, Forman, Martin & Palmieri, 2008). Since teachers work directly with students and carry out the daily operations of the school, their views, voices, and attitudes have a direct impact on the successful implementation of school programs. Tillery et al. (2010) suggested that "understanding teachers' perspectives about behavior is an essential element of implementing prevention focused initiatives because their perspectives likely influence their choice of behavior management strategy" (p. 87).

Thus, a teacher's belief about whether a child's behavior is predetermined or that environment influences the development of behavior may influence how a teacher handles situations in the classroom. Teachers who believe that environment plays a role in behavior may be more likely to employ methods for changing behavior or actions of children in the classroom and take responsibility for establishing effective management procedures (Tillery et al., 2010). Other teachers, however, may view a child's behavior as being derived from nature rather than nurture, thus limiting the influence a teacher can have on changing negative behaviors. This belief, coupled with limited training in the area of classroom management in many teacher preparation programs, leads to ineffective classroom and school policies that contribute to negative student behaviors (Alvarez, 2007).

School Culture

A school's culture refers to "a set of norms, values and beliefs, rituals and ceremonies, symbols and stories" that make up the character of the school (Cromwell as

cited by Muhammad, 2009, p.12). This is the attitude of the school or how the people in a school respond in daily operations. Schools are often classified as having positive or negative cultures. In positive cultures, teachers and students interact respectfully and the adults in the building (a) "have an unwavering belief in the ability of all of their students to achieve high success" and (b) "create policies and procedures and adopt practices that support their belief in the ability in every student" (Muhammad, 2009, p. 13). In contrast, Muhammad stated that negative or "toxic" cultures are places where educators define student success as willingness "to comply with the demands of the school" and "to create policies and procedures and adopt practices that support their belief in the impossibility of universal achievement" (p.14). Deliso (2005) suggested that schools with large numbers of discipline referrals or behavior problems can contribute to the development of a toxic school environment. Just as a teacher's views on how to handle negative student behavior in the classroom can impact the overall classroom environment, how the majority of the school's teachers in the building perceive the consistency of how discipline is handled by the administration has an impact on the climate and culture of a school as a whole. Sprague, Stieber, and Smith (2011) proposed that when the adults in a building work together to teach expected behaviors actively and consistently, then the overall school climate will improve as a result of negative student behaviors decreasing due to preventive interventions. Alderman (2000) advocated that school discipline should not be piecemeal, but that every adult in the building working together to teach school-wide procedures will improve school effectiveness and reduce negative student behaviors. In addition, Alderman suggested that frequent audits should be conducted to observe the school at various times to measure the consistency of the school's program.

School-wide Positive Behavior Interventions and Supports (SWPBIS)

In order to create positive learning environments where teachers play an active role in the school improvement process and meet the demands of state and federal legislation to provide safe schools, many local schools and systems have turned their attention to redefining discipline policies and procedures. The state of Georgia is also under pressure to meet the federal guidelines of NCLB and reduce the number of violent incidents in schools, and has subsequently adopted legislation to improve safety in the schools. In the official code of Georgia (OCGA), state code 20-2-735 states that local boards of education "shall adopt policies designed to improve the student learning environment by improving student behavior and discipline" (OCGA, 2011, p. 1). School system leaders and building level principals have worked to indentify research-based programs for school improvement that address a reduction in negative student behaviors in the whole school environment. A variety of school-wide behavior management systems exist; however, studies of effective school-wide behavior management plans suggest they are multileveled to provide behavior expectations across several settings in the school (Muscott et al., 2004). Most of these management systems are composed of a three-tiered approach (George, Harrower, & Knoster, 2003). According to Sherrod, Getch & Ziomek (2009), applying behavior interventions across multiple settings refers to the prevention of negative behaviors by explicitly stating and posting student behavior expectations in specific areas of the school. For example, student behavior expectations may be different for after-school activities such as a football game than they are for conducting research in the media center. This school-wide tier establishes expectations for all students and generally leads to positive responses from 80% to 90% of students in

the school . The next level affects approximately 10% to 20% of the population and is used with students who have been identified as needing additional strategies for monitoring behavior in specific locations of the school. The third tier is limited for less than 10% of students identified as having "chronic, established behavior problems" (p. 3).

One popular research-based framework that schools are turning to in order to help reduce the numbers of negative student behaviors that result in office referrals is an approach known as School-wide Positive Behavioral Interventions and Supports (SWPBIS), which began at the University of Oregon. This is a multi-layered method that teaches and rewards behavior that is appropriate in social and academic settings, acts to reduce the number of problem behaviors in a school setting, and improves the overall climate of the school (Lassen, Steele, & Sailor, 2006). This approach emphasizes four critical components: "(a) data for decision making, (b) measureable outcomes supported and evaluated by data, (c) practices with the evidence that these outcomes are achievable, and (d) systems that efficiently and effectively support implementation of these practices" (PBIS, 2011). The method relies on the three-tier approach to behavior support to address the social and behavioral needs of the students in the school and prevent social and academic failure (Simonsen, Sugai, & Negron, 2008). This three-tiered support continuum is modeled after the RTI pyramid of intervention and is illustrated in Figure 2.2 (PBIS, 2011).

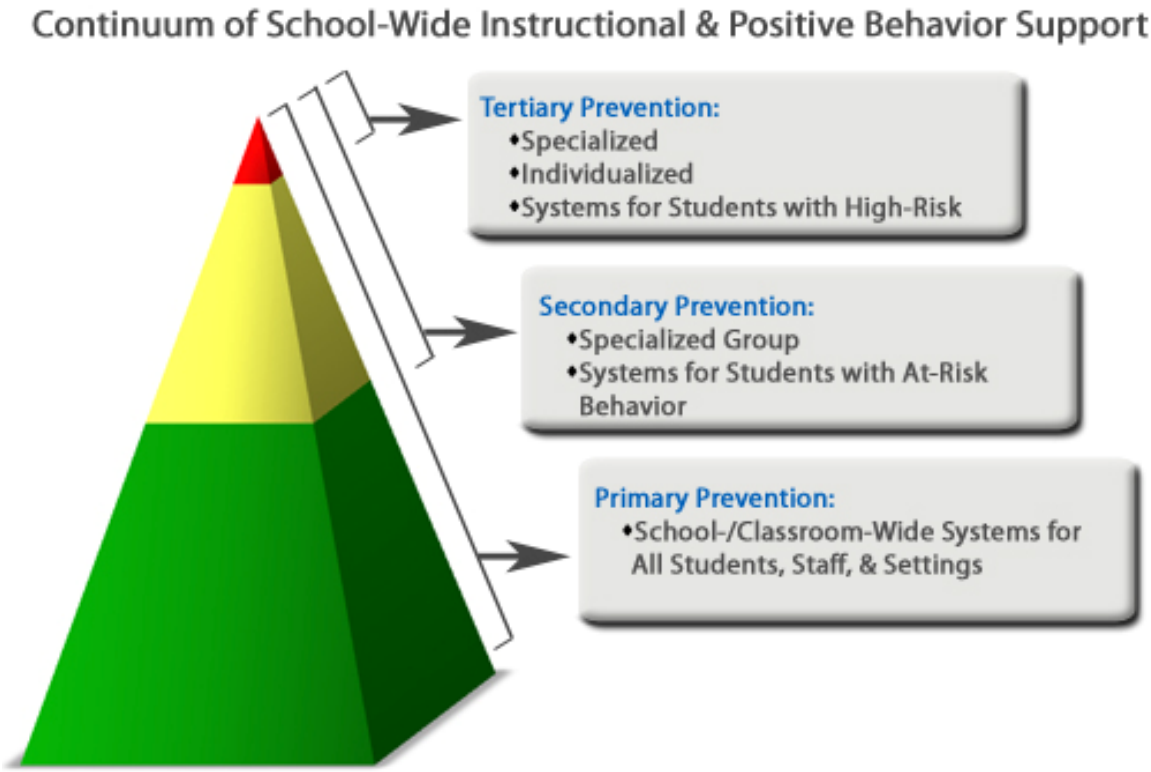

Figure 2.2. Continuum of School-wide Instructional and Positive Behavior Support.

The primary prevention or universal tier applies to everyone in the school setting. The purpose of this intervention is to "prevent problems by defining and teaching consistent behavioral expectations across the school setting and recognizing students for expected and appropriate behaviors" (Lohrmann et al., 2008, p.256). The secondary prevention aims to target students who display patterns of behaviors and interventions, and can be delivered in small group settings. An example of providing a targeted intervention may be a counselor meeting with an anger management group to prevent aggressive or disrespectful behavior. The tertiary level focuses on individualized student behavior and is often accompanied by a specific behavioral plan that focuses on specific skills and changes in environmental settings (Lohrmann et al., 2010).

Sugai and Horner (2006) proposed that in order to develop an effective school-wide positive behavior management system several components need to be in place: (a) a

planning team representing all facets of the school, (b) defined expectations for student behavior, (c) direct instruction of expectations to students, (d) procedures for reinforcing appropriate behaviors and discouraging inappropriate behaviors, and (e) a process for evaluating outcomes. Pool et al. (2010) emphasized the importance of teacher focus groups to develop the system wide plan to create teacher buy-in as well as provide consistency in following and analyzing the results. Teachers must work together to get a consensus on the acceptable behaviors, how instruction will be carried out in the school and what reinforcements for positive behaviors and consequences for negative behaviors will be issued.

Two types of behavioral reinforcements that have been suggested for improving behavior school-wide are delivering consistent written and verbal praise and providing token reinforcements (Wheatley et al., 2009). Research indicates that teacher praise when used for appropriate behaviors is an effective behavior management strategy to reduce disruptive behavior and that appropriate praise also increases students' on task behavior (Ferguson & Houghton, 1992; Nelson, Young, Young & Cox, 2010). Token reinforcements are tangible items that represent some type of value to students and may function similarly to money. Students exhibiting positive behaviors are issued these tokens that may then be exchanged for items of significance to the student. These items may include candy, toys, pencils, and even free time. Some schools implement a ticket system for rewarding students who make positive behavior choices. In these programs, students receive a ticket or a note that functions as both praise and a token that is "entered into a lottery or exchanged for a desired reward" (Wheatley et al., 2009, p.557). In a recent study of middle school students, Nelson et al. (2010) combined a system of praise

notes and tangible reinforcements, and found a a correlation between praise notes and decreased negative behaviors in students. Nelson concluded, "As praise notes increased, rates of discipline referrals decreased" (p.122).

Summary

Behavior issues in school settings are a historical problem; however, in light of recent school shootings and violence, "there has been an outcry for more effective "discipline procedures" and demands for "discipline systems" (Sherrod, Getch, & Ziomek-Daigle, 2009, p. 2). Simultaneously, schools are trying to meet the academic needs of students and the rigorous federal requirements of NCLB. To do this, educational systems need to rely on research-based strategies that support maximizing instructional time by reducing students' negative behaviors. Although schools have access to books and professional learning to aid individual teachers in improving classroom management, most schools still rely on informal measures to determine effectiveness of programs centered on behavior management (McIntosh, et al., 2009).

The results of the current study may be used to help schools that are still relying on traditional reactionary methods to school discipline identify effective strategies to increase positive student behaviors and help build the confidence of teachers in use of these strategies. Study results may bring about a decrease in negative student behaviors and a subsequent increase in academic learning time. Several school-wide behavior plans have been recognized, and some research exists that evidences a reduction in discipline referrals (Simonsen, Sugai, & Negron, 2008). However, few studies exist to document the effects of school-wide behavior management systems on improving or reducing specific types of behaviors. School-wide Positive Behavioral Interventions and Supports

(SWPBIS), a widely known approach to assist schools in developing school-wide behavior management plans, encourages teacher buy-in, as well as provides consistency in following the plan for best results.

The results reported from this study are valuable for school personnel because they attest to the combined effects of a preventative system to address student misbehavior beyond a single year. Multi-year data are an important research consideration for study according to Luiselli, Putnam, & Sunderland (2002). This research problem is worth studying as it has the potential to serve schools that have identified a need to improve the overall climate and culture of the school by the identification and implementation of a positive school-wide behavior management system. This is significant, as it adds to the body of research supporting decreased negative student behaviors as a result of implementing these positive school-wide plans. Parker et al. (2010) indicated a need to address specific behaviors influenced by behavior management plans. This study helps to fill the gap in the lack of research that addresses specific types of student behaviors that may be affected by such programs.

CHAPTER THREE: METHODOLOGY

Student discipline problems continue to be an important issue facing teachers and administrators in public education and are present at several levels. Dealing with disruptive behaviors in the classroom can lead to loss of instructional time for both students and teachers, while serious violent behaviors such as harassment, fighting, and possession of drugs or weapons lead to dangerous learning environments (Luiselli, Putnam, & Sunderland, 2002). Research suggests one effective approach to reducing discipline problems in schools is to implement a school-wide behavior management plan that focuses on the entire student population (Sugai, Sprague, Horner & Walker, 2000). This comprehensive approach referred to as School-wide Positive Behavior Interventions and Supports (SWPBIS) is based on the assumption that when all the adults in the building explicitly teach the expected behaviors, then student behavior problems will be reduced (Gresham, 2004).

The purpose of this causal comparative study was to determine whether there was a significant difference in the types of discipline behaviors in schools with and without positive school-wide behavior management plans. This research study addressed the following questions:

- Research Question 1: *Is there a significant difference in the percentage of students referred for level one, two, and three discipline referrals between SWPBIS and non-SWPBIS schools?*
- Research Question 2: *Is there a significant difference in the total number of discipline referrals each year within each participating school?*

- Research Question 3: *Is there a difference between schools SET scores and the percentage of discipline referrals in SWPBIS schools and non-SWPBIS schools?*

Research Hypotheses

The following null hypotheses were tested:

- Null hypothesis 1: There are no statistical differences in the total percentage of discipline referrals at level one, two, and three in SWPBIS and non-SWPBIS schools.
- Null hypothesis 2: There is no statistical difference between the total numbers of discipline referrals each year within the same school.
- Null hypothesis 3: There is no difference in the SET scores and the number of office discipline referrals between SWPBIS and non-SWPBIS schools.

Research Design

This study utilized a causal comparative design, also called an *ex post facto* design, to determine if there was a difference in the behavior of students in schools with a positive behavior management system by examining the number and types of behavior infractions at schools with and without these school-wide systems. According to Gall, Gall, and Borg (2007), a causal comparative study "seeks to identify cause-and-effect relationships by forming groups of individuals in whom the independent variable is present or absent – or present at several levels – and then determine whether the groups differ on the dependent variable" (p.306). In this study, the researcher included two independent variables; SWPBIS and non-SWPBIS schools. Three levels of student discipline referrals represented the dependent variables. The three levels of student

discipline referrals represented a progressive discipline plan that recognizes differences in minor, repetitive, behaviors to more severe and criminal behaviors.

To determine the design for this study, the researcher had to consider that the two SWPBIS schools had already implemented the school-wide behavior management plan, and it would not have been possible to manipulate the independent variables. The causal comparative research design fit the study because the researcher used archived data to explain any possible differences in the frequency of the types of student behaviors in SWPBIS and non SWPBIS schools (Gall et al., 2007).

Participants

The participants for this study consisted of three North Georgia middle schools with similar student populations and demographics. Each school ranges in size from 800 to 1,000 students. Two schools, school A and school B, implement a similar school-wide positive behavior management plan while the other school, school C does not. School A has a demographic student make-up that is 78% white, 13% African American, and 9% Hispanic. School A serves a population that is 60% economically disadvantaged (ED) and has a special education population of 14%. At school B, 82% of students are white, 10% are African American, and 8% are Hispanic. There are a small percentage of Limited English Proficient (LEP) students at each school. School A's LEP population is 6% while School B and C have smaller percentages reporting 2% and 3% respectively. Fifty-eight percent of the students at school B are considered ED, and 14% of their students receive special education services. School C has a demographic make-up of 88% white, 6% African American, and 4% Hispanic. The population of students at school C that are considered ED is 58% and 17% of the students receive special

education services (GADOE, 2010). This breakdown of student demographic information can be seen in Table 3.1.

Table 3.1

School Demographic Profiles

School	%ED	%LEP	%White	%Black	%Hispanic	%Sped
School A	60	6	78	13	9	13
School B	58	2	82	10	8	14
School C	58	3	88	6	4	17

All three schools are considered matching or "similar" schools according to the Georgia School Council Institute, which reports matching schools based on four factors: (a) percentage of students eligible for free or reduced price meals or ED, (b) percentage of students with limited English proficiency (LEP), (c) schools highest ethnic percentage, and (d) schools second highest ethnic percentage (Georgia School Council Institute, 2010). This matching process was used to "equate the two groups on one or more extraneous variables so that these extraneous variables do not confound the study of causal relationships involving the variables of primary interest to the researcher" (Gall et al., 2007, p. 313).

Most schools in general have some form of discipline steps in place for students that misbehave. Students are expected to adhere to rules and consequences; however, not all schools follow a school-wide plan for teaching student expectations and rewarding students for positive behaviors. Students in these schools are expected to follow the rules

without the benefit of explicit instruction and individual teachers are often left to determine rules and consequences for students in their charge. In non-SWPBIS schools, there are no "universal interventions that apply to all students, all staff, and all settings" (Lohrmann et al., 2008, p.256).

Setting

Information collected on three North Georgia middle schools in one district was used in this study. All three schools follow the middle school structure, which is composed of small academic teams that teach the core content subjects of language arts, math, science, social studies, and two connection classes. Connection classes offered in each of these schools consist of art, band, chorus, computers, Spanish, P. E., and careers. These schools are required to teach 300 minutes of core academics each day and 100 minutes of connections. All schools in this study follow a 75-minute block schedule for the core content and two 50-minute classes of connections. Students rotate through the different connections each nine-week grading period to experience a different elective. Each school's administrative staff is composed of a principal and two assistant principals. All three middle schools in the study are located in the same school system and adhere to the same district level policies for student discipline consequences; however, they differ in their approaches for managing student behavior. The district level administration defines the levels of discipline and possible consequences in the student code of conduct. The code of conduct is distributed to all students, parents, and staff in system. Parents are required to review the system policies and then sign that they have read and understand the system's policies on student behavior expectations and the resulting

consequences of student misbehavior. These discipline infractions and levels of behavior can be seen in Figure 3.1 and 3.2.

Level 1 Behaviors	Level 2 Behaviors	Level 3 Behaviors
No Materials Tardy Minor dress code violations Minor hall infractions Talking/off task Dishonesty/Cheating Failure to follow directions or rules Running, pushing, or shoving Horseplay Disrespectful/unkind to students Inappropriate language to students *These offenses will not occur in immediate office referral.	Chronic level 1 behavior Defiance of authority Disrespect for authority Chronic dress code infractions Inappropriate computer use Inappropriate display of affection Profanity Racial or ethnic slurs Skipping class Stealing Being in an toward unauthorized area Physical aggression toward students Unsafe bus behavior	Chronic/extreme level 2 Fighting/striking back Bullying/harassment Verbal/written implied threats of violence Physical aggression/Assault of authority Vandalism Theft from school/authority Possession of inappropriate items including: drugs, alcohol, imitation drugs, over the counter drugs, tobacco or related items, drug related items Unauthorized exit from school Destruction of property Computer Trespass Sexual misconduct/harassment

Figure 3.1. Discipline Infractions and Consequences

Level 1 Consequences	Level 2 Consequences	Level 3 Consequences
Warning Parent teacher conference After school detention In Class Detention Minor work detail Conference with student Refer to counselor Seating Change Office referral (only after documented steps to correct behavior)	Office Referral ISS OSS Administrative Contact/conference with parent Restitution Behavior Correction Plan Parent escort during school Referral for Student Support Team (SST) Bus suspension	Immediate office referral Long term ISS/OSS Referral to tribunal for expulsion Contact law enforcement Probable legal charges/arrest

Figure 3.2. Discipline Consequences

Two of the schools in the study, A and B, implement a similar positive behavior management plan modeled from SWPBIS, which is a positive behavioral support program that was developed by the Institute on Violence and Destructive Behavior at the University of Oregon. Prior to the 2005-2006 school year, School A and School B received training in SWPBIS. Experts from the University of Oregon trained a team at each school in effective support strategies. These teams were composed of teachers and staff members from the respective schools. Each school developed its own program and procedures with the aid of SWPBIS instructors, which were framed around (a) positively stated behavioral expectations or rules, (b) procedures for directly teaching these expectations to students, (c) implementation strategies for encouraging positive choices and discouraging rule violations, and (d) procedures for monitoring and record keeping (Center for Effective Collaboration and Practice [CECP], para. 2).

After implementation, the programs in School A and School B were examined, and both schools had developed a token reward system strongly resembling a monetary

system that rewards students for positive behavior. This token is in the form of a slip of paper and has a catchy name such as “cat’s cash” or “paw passes,” based on the school’s theme or school mascot. The school administrators, teachers, support staff, and even bus drivers hand out the “cash” or “passes” for acceptable behaviors that are noted by individual students and staff members in the building. Examples of behaviors that may be rewarded include holding the door for a peer or teacher, following directions in the hallway, stopping to help someone pick up books that had been dropped, or tutoring a friend. Students receiving the “cash” or “passes” can purchase items at the school store or exchange them for privileges such as eating lunch on the patio with a friend, free time, a pass to the media center, or a homework pass.

In addition to the development of a rewards system, each of these two schools developed a set of rules and procedures for students to follow in all areas of the building. These rules are posted in their respective locations in the school, and students spend the first two days of school in their connections classes learning or reviewing the rules and practicing the appropriate behaviors. The connection teachers in each of the two schools tour the students throughout the building, providing opportunities to practice appropriate common behaviors such as lining up in the lunchroom, walking on the right side of the hallway, boarding and unloading buses, and attending school-wide assemblies. Academic classroom teachers also explicitly teach the appropriate behaviors the first week of school, and all students and parents are required to sign a behavior expectation contract that outlines the school-wide positive behavior management plan.

Consistent consequences were also developed by each school for disruptive classroom behavior, and teachers record the steps outlined in the management plan. For

minor classroom disruptions students first receive a warning. Then, for each subsequent negative behavior choice, the consequence increases in severity:

1. An official verbal warning
2. One day silent lunch and parents contacted
3. Two days silent lunch and parents contacted
4. One day – In-team; parents contacted
5. Office discipline referral

These steps are filled out on a formal document that teachers keep in a notebook in their classrooms. When a student reaches the office referral step, the discipline record is sent to the office with the office discipline referral form. This discipline record helps ensure that consistent steps are followed prior to a student being removed from the classroom and also ensures that parents are contacted to help with minor discipline infractions such as talking out of turn or while the teacher is talking, chewing gum, not paying attention in class or doing class work, running in the hall, and other off task classroom or hallway behavior.

School C did not participate in the SWPBIS training and does not implement an instructional program for explicitly teaching students behavioral expectations. Teachers in the building establish their own classroom and hallway expectations when the students are in their supervision. Although this non-SWPBIS school does have an established set of rules and procedures; they do not post the universal expectations throughout the school and have no formal plan for teaching the expectations to the students other than providing the system code of conduct to the students. This school also does not offer official opportunities for students to practice the behavior expectations in school settings. The

administrators in School C do follow a set of guidelines for disciplining students according to the system level code of conduct and handle students' discipline according to each grade level team's varying classroom management plans. The chart in Figure 3.3 illustrates the differences in the discipline framework or approaches of SWPBIS and non-SWPBIS schools.

Characteristics of Discipline Procedures	
SWPBIS	**Non-SWPBIS**
Documented system of agreed upon rules and expectations for student behavior that are publicly posted throughout the school.	School expectations may exist but are not posted publicly throughout the building.
A universal system for teaching and behavioral expectations to students.	No system is established for teaching school expectations for students other than providing the list of rules
A universal system that provides students the opportunity to formally practice expected behaviors	Students are not provided the opportunities to practice expected behaviors in a formal structure.
A universal system for rewarding student's behavior throughout all school settings.	Rewards are limited to individual teacher or teams at each grade level. Not recognized school-wide.
Behavior Management Team to evaluate student discipline data to assess on-going efforts and revise procedures as needed made up of teachers and administrators.	Student discipline data is managed and evaluated by administration.

Figure 3.3. Characteristics of SWPBIS and non-SWPBIS Schools

Instrumentation

Several key instruments existed in this study. The primary dependent variable in this study was the number and level of discipline referrals recorded at each school that resulted in either ISS or OSS. Discipline referrals are given to students for one of three

levels of misconduct. Level one is for repetitive disruptions that have not been corrected through a series of progressive discipline steps within the classroom. These types of behaviors are non-threatening, minor repetitive infractions such as being late for class, talking continuously out of turn, and dress code violations. Level two behaviors are more serious and generally result in an office referral upon occurrence. These include cheating, fighting, destruction of property, inappropriate language, or disrespect toward staff. A level three behavior is considered dangerous to self or others and results in an immediate referral. Such behaviors are harmful, possibly illegal behaviors and include substance use or possession, weapons, and forms of vandalism and bullying. Consequences for office referrals range from a warning for a first level one offence to in-school suspension (ISS) or out-of school suspension (OSS) for level two or three offenses. Only discipline referrals that receive ISS or OSS were considered for this study.

As administrators receive discipline referrals, one instrument in the study, they are responsible for entering the data into the local school system information system for state reporting. The state of Georgia mandates that all student discipline resulting in ISS or OSS is required to be reported to the state student information system. These are web-based systems that store student and school system data for consecutive years. Data entered includes student ID number, time and date of the referral, type of behavior, the location of the incident, and the specific discipline intervention. Through this information system, reports can be tracked in table or graph form for each of these variables. For the purpose of this study, discipline referrals were tracked for three consecutive years. Discipline data from 2009, 2010 and 2011 were collected from all

three schools and the number and level of discipline referrals generated at each grade level was totaled and converted into a percentage. Using a percentage of each type of office referral helped to equate the schools based on differences in the total number of students enrolled at each school. McIntosh et al. (2009) have shown that using discipline referral data is a valid measure when the referrals are defined and used systematically. Tracking this information through the state's reporting system mitigated threats to the validity of collecting information from individual school discipline referrals and increased reliability concerns that may have arisen due to the possible bias of obtaining the information from different administrators. This information has been de-identified by the Student Information Technology Specialist at the district level to protect individual students from being identified. Only the discipline codes that reflect the level of student discipline and the consequence have been identified. For purposes of this study, only office referrals that resulted in ISS or OSS were collected, as administrators are mandated to report these types of discipline actions.

Additional information was collected on a second dependent variable. At each school, the researcher conducted a survey known as the School-wide Evaluation Tool (SET). The SET is a "research-validated process measure for program evaluation" by evaluating school documents, physical spaces, and surveying administrators, teachers and students (Muscott et al., 2004, p.463). The SET provides information on seven features that are present in SWPBIS schools including:

1. Expectations defined (2 items)
2. Behavior expectations taught (5 items)
3. System of rewards (3 items)

4. System for response to violations (4 items)
5. Monitoring and decision making (4 items)
6. Management (8 items)
7. District support (2 items)

Each item was scored (a) 0 for "not in place", (b) 1 for "partially in place", or (c) 2 for "in place." Scores were reported in percentages from 0% to 100% and schools scoring at 80% or above on the second feature (expectations taught) or an average of 80% on all features were considered to be implementing effective systems (Muscott et al., 2004). The SET was found to be a reliable instrument to determine consistency in following school-wide discipline procedures with a Cronbach's alpha of .77 (Algozzine et al., 2010).

Procedures

Once Liberty University's Institutional Review Board's approval was granted, data collection began. Approval was obtained from the system superintendent as well as from the principals at each school (Appendix B). Archived data from each school system's student information system was collected on the levels of recorded discipline referrals at each school.

The discipline referral information reported each year for each school was exported into an Excel spreadsheet. Data were collected on the total number of referrals each year for each of the groups participating in the study. The total number of discipline referrals from each school was converted to a percentage of each type of office referral to equate the three schools' differences in total population of students. Each system's student information system maintains records of discipline referrals for specific types of

behavior based on numerical codes. These codes were obtained from the Information Technology Specialist at the system level who works with the student information system that supports all the schools in the county. Because the study was designed around investigating the effectiveness of school-wide positive discipline plans based on numbers of office referrals, individual students' names were not included in the data. The Information Technology Specialist ensured that any student or teacher identification related to the office referral was de-identified prior to being sent to the researcher.

Table 3.2 illustrates the discipline data collected for analysis.

Table 3.2

Discipline Referral Frequency Table

School and Year	L1 *n*	L1 %	L2 *n*	L2 %	L3 *n*	L3 %	Total *n*	Total %
School C								
2009	155	62.75	39	15.79	53	21.46	247	100.00
2010	140	69.65	22	10.95	39	19.40	201	100.00
2011	95	71.43	23	17.29	15	11.28	133	100.00
School A								
2009	265	69.55	79	20.73	37	9.71	381	100.00
2010	223	67.37	62	18.73	46	13.90	151	100.00
2011	151	62.40	68	28.10	23	9.50	242	100.00
School B								
2009	213	80.38	35	13.21	17	6.42	265	100.00
2010	210	86.07	20	8.20	14	5.74	244	100.00
2011	149	77.60	29	7.29	14	7.29	192	100.00

In addition to student discipline collection, the researcher met with the administrators from each school to develop a collection process for SET scores at each school. The researcher worked with the administration at each school to establish times and dates to complete surveys and make observations at each school. The researcher worked with the school level contact to establish procedures for conducting the SET and collecting the necessary information. Approximately two to three hours was spent at each school to complete the process and obtain a SET score for each school (Lewis-Palmer, Horner, Todd, & Sugai, 2005). SET scores for each school in the study were recorded into a table for analysis. Table 3.3 provides an example of the data collected.

Table 3.3 SET Scores

SET Scores

School	SET Score %
School A	29.5
School B	88.5
School C	93.6

Data Analysis

The purpose of this study was to determine if there was a significant difference in level one, level two and level three student behaviors in middle schools with and without school-wide positive behavior management systems. Data were collected for the three middle schools across three years under study from 2009 to 2011. Descriptive statistics and appropriate analytical tools were used to answer the following research questions:

Research question 1 stated as follows: Is there a significant difference in the percentage of students referred for level 1, 2, and 3 discipline referrals between SWPBIS

and non-SWPBIS schools? This question was answered using a Chi-Square test, which is used to determine whether or not two variables are related. In this case, the level of student referrals and participation in the SWPBIS were tested to see if they were related. A table of observed and expected counts of discipline referrals for each school was created for analysis.

Research question 2 stated: Is there a significant difference in the distribution of discipline referrals each year within each participating school? This question was answered by using a series of Chi-Square tests. Each school was investigated individually and each pair of years was tested. Specifically, the levels of discipline referrals for 2009 was tested against 2010, 2010 versus 2011, and lastly, 2009 versus 2011 within each of the three schools to determine whether or not the distribution of referrals was related to the year. Again, a table of observed and expected discipline counts was created for the three schools on each year for analysis.

Research question 3 was stated as follows: Is there a difference between schools SET scores and the percentage of discipline referrals in SWPBIS schools and non-SWPBIS schools? The SET scores for each school were calculated and recorded in a data table. Because there is no variance given with the three scores alone, no statistical test could be run for significance; however, descriptive analysis was completed to provide some insight about the findings at each school.

Howell (2008) suggested that there are three important factors to consider when determining the statistical procedures for interpreting research data. First is the type of data, which for this study is discipline data already archived. Second is whether the study in question is considering differences versus relationships, and the current study

considered differences in types of programs. Since the data collected was categorical or frequency data, Howell suggests use of a Chi-Square (X^2) test, which is a "nonparametric statistical test to determine whether research data in the form of frequency counts are distributed differently for different samples" (Gall, Gall & Borg, 2007). Finally, the number of groups and or variables must be considered. Using Howell's decision tree, the researcher determined that Pearson's Chi-Square analysis of contingency tables would be the appropriate analysis to answer the first two research questions. The third research question addressing SET scores was answered descriptively, as no test could be run for significance.

The following null hypotheses for the study were analyzed:

- *Null hypothesis 1:* There are no statistical differences in the total percentage of discipline referrals at level one, two, and three in SWPBIS and non-SWPBIS schools.
- *Null hypothesis 2:* There is no statistical difference between the total numbers of discipline referrals each year within the same school
- *Null hypothesis 3:* There is no difference in the SET scores and the number of office discipline referrals between SWPBIS and non-SWPBIS schools.

Each null hypothesis was rejected for the respective analysis when the resulting *p*-value was less than .05. Howell (2008) provided two considerations that were taken into account when using a Chi-Square test. The first is that when the expected frequency of any cell was less than five; a correction test (either Yates or the Fisher exact test) must be applied to the regular Chi-square test. This was not found to be relevant to the current study, as the expected frequencies for all cells were greater than five. A second

consideration addresses the use of a Chi-square test as a test on proportions. To test for differences in proportions, Howell stated "the only correct way" is to convert the proportions to frequencies and then run the Chi-square test (p.477). This study's research design acknowledged the appropriate testing procedures and used the frequency data for purposes of analysis. For purposes of discussion, the data were also broken down into subgroups at each school to investigate possible differences in gender, ethnicity, and socioeconomic status.

It was the intent of the researcher to collect, interpret and present the findings of this study ethically in order to provide further educational research in the area of student behavior. The researcher has not benefited personally from the study, and the schools and participants received no monetary supplement or compensation for their participation in the study.

CHAPTER FOUR: RESULTS

Overview of Problem

One challenge that continues to be a dilemma for educators is dealing with student behavior problems. Frequent minor classroom disruptions lead to loss of instructional time for all students, and serious behavior problems such as bullying, fighting, or substance abuse can lead to unsafe school environments. How schools choose to address discipline policies and handle negative student behavior is often left to individual school administrators or leadership teams within the school. Schools that fail to handle discipline effectively may attribute to poor individual, school, and community outcomes (Osher, Bear, Sprague, & Doyle, 2010).

Traditionally, schools have dealt with disruptive students through suspensions or other forms of punishment that lead to a loss of instructional time. Current research suggests that schools that initiate some type of comprehensive preventative approach such as School-wide Positive Behavior Interventions and Supports (SWPBIS) can reduce the number of discipline incidents within the school. There are few studies that examine which types of student behaviors are reduced as a result of implementing SWPBIS, and few studies that compare similar schools that use SWPBIS to those that do not.

Restatement of Purpose

The purpose of this study was to determine if there was a statistical difference in the number of discipline referrals on three levels of discipline for students in middle schools implementing SWPBIS to those that did not use SWPBIS systems for behavior management. This study also sought to add to the existing body of research on this topic and to provide new information that addresses the specific types of behaviors that may be

improved as a result of implementing school-wide behavior management systems at the middle school level. More specifically, this study answered the following questions:

1. Is there a significant difference in the percentage of students referred for level one, level two and level three discipline referrals between SWPBIS and non-SWPBIS schools?
2. Is there a significant difference in the distribution of discipline referrals each year within each school?
3. Is there a significant difference between school's SET scores and the percentage of discipline referrals in SWPBIS schools and non-SWPBIS schools?

Instrumentation

The first instruments used in the study were the system's discipline referrals at each school for the 2009, 2010, and the 2011 school years. These discipline incidents are recorded in the county's student information system that reports to the Georgia Department of Education. Research has shown that using discipline referral data to be a valid and reliable measure when they are defined and used systematically (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004; McIntosh et al., 2009; Tobin & Sugai, 1999; Walker, Cheney, Stage, & Blum, 2005). Referral data was collected and coded for each level of discipline and then disaggregated by ethnicity, gender, and socioeconomic status. Differences in discipline levels between each school were compared using nonparametric statistics. Statistical tests were also used to analyze the differences in levels of office referrals within the same school over the three-year period.

In addition to discipline referral data, information was collected through a second instrument. Survey data was collected from each school using the School-wide Evaluation Tool (SET) survey. This survey provides information on school discipline procedures and the consistency of implementing discipline policies and procedures. The SET survey has a Cronbach's alpha of .77, indicating its reliability. The SET scores for each school were compared to the total percentage of discipline referrals at each school and differences were discussed using descriptive statistics.

Descriptive Analysis

Data were collected for three middle schools in one Georgia School System across three years from 2009 to 2011. The schools included two schools, Schools A and B, which incorporated SWPBIS and one school, School C, which did not. The discipline data were collected for each school and integrated into one file. Before conducting the statistical analysis, descriptive data were collected and analyzed separately at each school. Descriptive data are provided for each school on the data collected including measurements of central tendency, dispersion and shapes of distributions. Figure 4.1 provides a list of variables on which data were collected and their descriptions.

Variable	Description
School	Name of middle school (School A, School B, School C)
Year	Year of disciplinary counts (2009, 2010, 2011)
Population	Population of the school during the given year
SWPBIS	School SWPBIS participation (0-No, 1-Yes)
Level	Disciplinary code level based on incident (1, 2, 3)
Ethnicity	Ethnicity of students (White, Black, Indian, Hispanic, Mixed, Asian, Pacific)
Gender	Gender of students (Male, Female)
Meals	Eligibility for free or reduced meals (MealFree, MealReduced, MealNe, SAS)
SET	School's SET score

TUNDUPStudents	The unduplicated count of students reported
TIEvents	The total number of discipline incident events reported, regardless of the number of students involved in each incident event

Figure 4.1. Variables and Descriptions

School C Discipline Data

The first school investigated was School C, which was the school that did not participate in SWPBIS. Data were collected for three years: 2009, 2010, and 2011. Figure 4.2 shows a graph of the population change over the three years, which indicated minimal change.

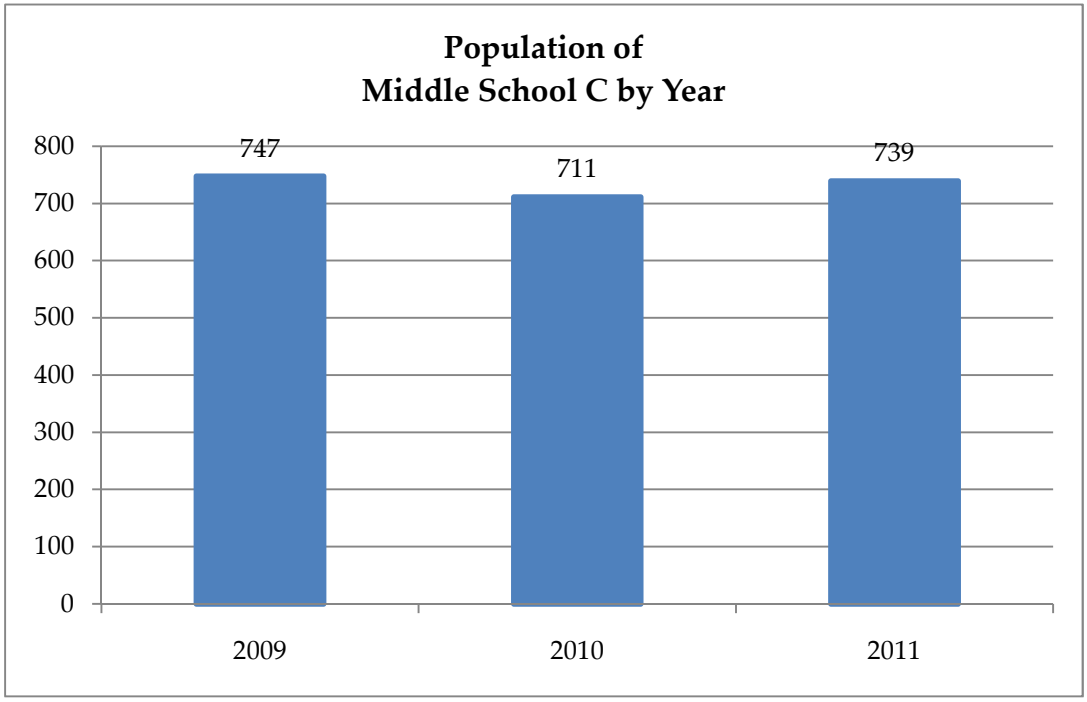

Figure 4.2. Population of Middle School C by Year

The total number of students reported for each of the three disciplinary levels at School C was investigated. Level three discipline referrals represented the most severe offenses such as alcohol, arson, battery, drugs, vandalism and weapons. Level two discipline referrals included the offenses of disorderly conduct, fighting and theft. Level

one discipline referrals covered all other discipline incidents. Table 4.1(Appendix D) shows the number of unduplicated discipline referrals by level and year at School C.

Over the three years of data, School C had 581 total (unduplicated) students referred for various disciplinary infractions. In 2009, there were 155 total students referred for level one codes, making up 62.75% of the total 247 for the year, 39 or 15.79% referred for level two codes and 53 or 21.46% referred for level three codes. Similarly, in the 2010 school year there were 140 students referred for level one (61.65%), 22 for level two (10.95%), and 39 for level three (19.40%). Lastly, in 2011, 95 students were referred for level one (71.43%), 23 for level two (17.29%), and 15 for level three (11.28%). The data indicated that the student receiving discipline referrals dropped substantively between 2009 and 2011 and may be of interest fur further investigation. The distribution these percentages and similar proportions can be seen in Figure 4.3.

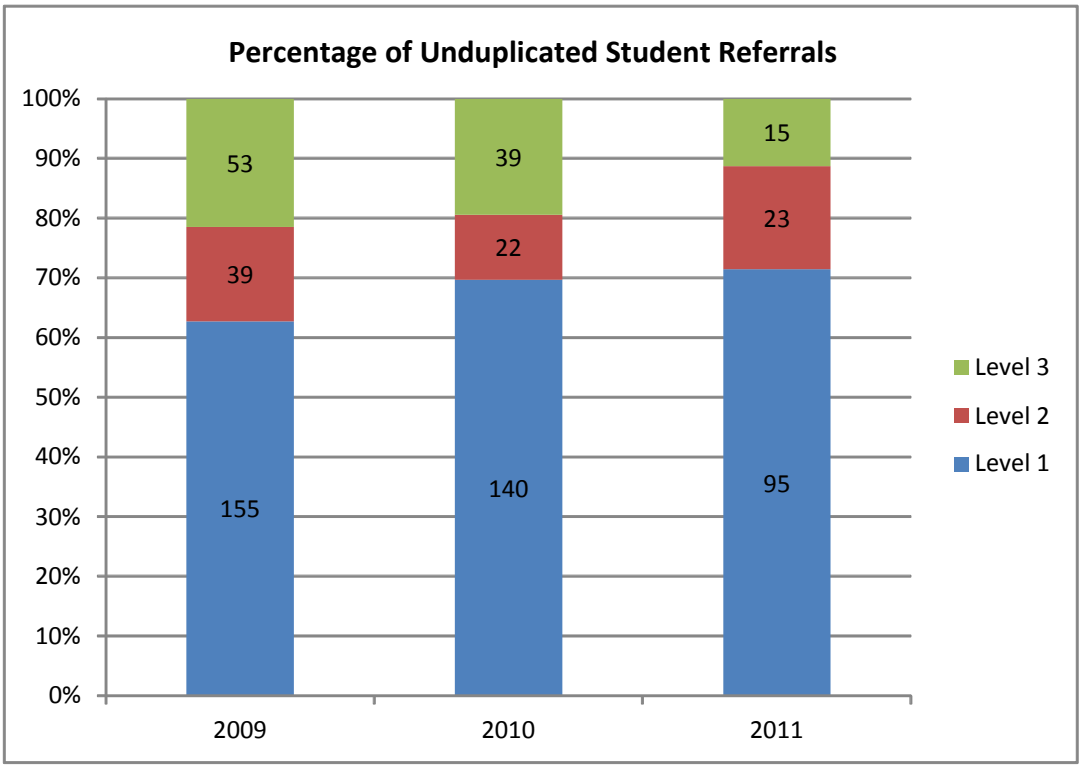

Figure 4.3. Percent of Unduplicated Student Referrals at School C

Another variable recorded was the total number of incident codes reported, allowing for the analysis of the total number of incident events in addition to the number of students referred. Table 4.2 (Appendix E) shows the frequency for total incidents reported at each level for the three years data were collected.

In total there were 1,018 incidents reported for the three years. In 2009, there were a total of 421 incidents: 323 (76.72%) were level one, 42 (9.98%) were level two, and 56 (13.30%) were level three. In 2010, there were a total of 382 discipline events. There were 313 (81.68%) level one events, 24 (6.28%) level two, and 46 (12.04%) incidents reported for level three in 2010. In 2011, there were 174 (80.93%) level one, 24 (11.16%) level two, and 17 (7.91%) level three referrals for a total of 215 overall referrals for 2011. The percentages of these levels can be seen in Table 4.2 (Appendix E) and compared in Figure 4.4, indicating that similar proportions can be seen among the different years.

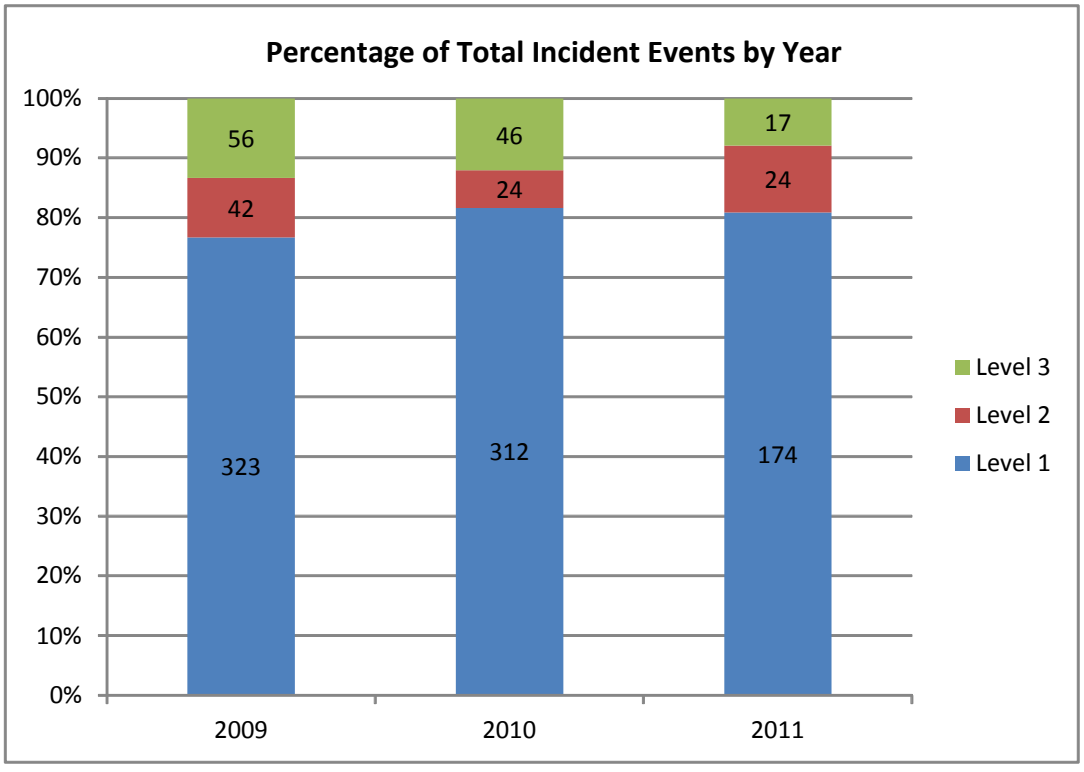

Figure 4.4. Total Incidents at School C by Year

Further information was investigated regarding ethnicity, gender, and the eligibility for free or reduced meals. For the total number of students referred each year the frequencies across the different characteristics are compared. Table 4.3 (Appendix F) shows the referrals by ethnicity.

For the 581 total students referred at School C, 509 were White (87.6%), 44 Black (7.6%), 13 Mixed Race, nine Hispanic, and three Indian and three Asian. Table 4.3 (Appendix F) offers further breakdown based on year and level of referral. Due to the small amount of non-White student, all other ethnicities are combined into the category of "Other." In 2009, there were a total of 247 office referrals. Of these, 216 referrals were from white students and 31 were from non-White students. There were a total of 155 level one discipline codes; of these level one codes, 136 were from White students and 19 were from non-White students. Level two referrals totaled 39 with 33 from White students and 6 from non-White students. Similarly, level three referrals totaled 47 for White students and 6 for non-White students. For the 26 total disciplinary referrals by non-white students in 2010, 19 (73.08%) were referred for a level one disciplinary action, two (7.96%) for level two and five (19.23%) for level three. White students in 2010 accumulated a total of 175 unduplicated office referrals; 121 (69.14%) for level one, 20 (11.43%) for level two, and 34 (19.43%) for level three discipline infractions. In 2011, there were 95 total level one referrals; of these 82 were White students. A total of 23 level two and 15 level three referrals were reported in 2011. These proportions can be compared in Figure 4.5.

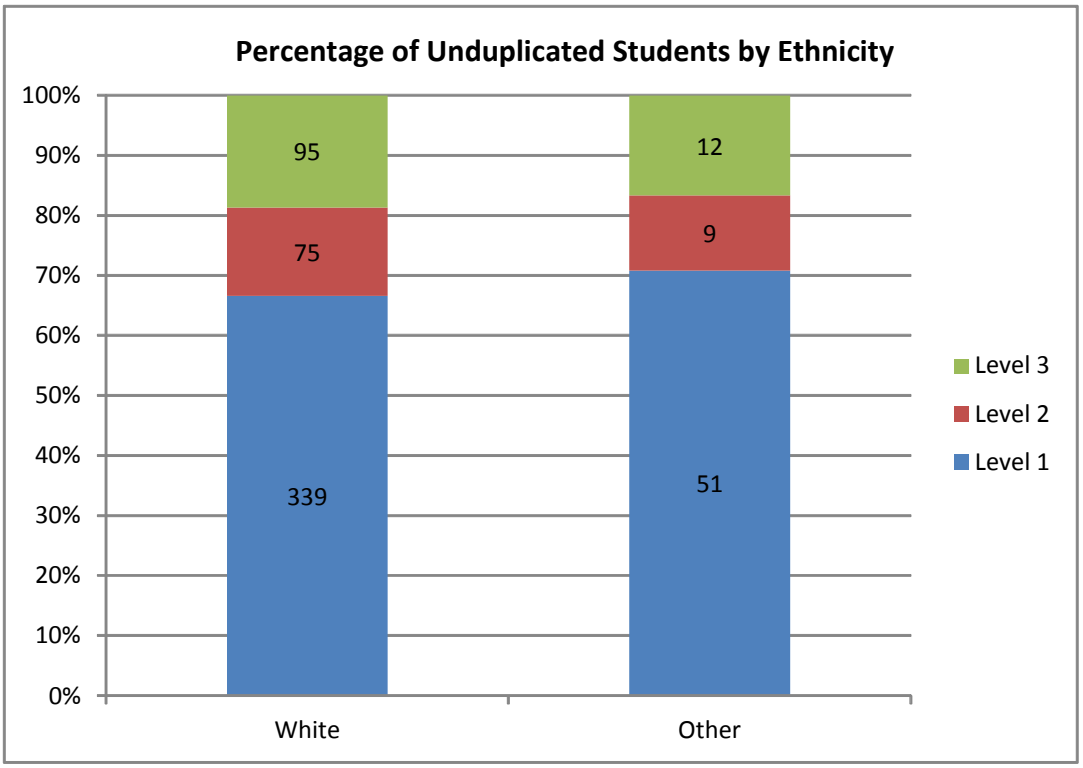

Figure 4.5. Percent of Student Referral Levels by Ethnicity

The total number of referrals for the three years and similar proportions can be seen for both categories of ethnicity. These data indicate that although there are smaller percentages of other ethnicities reported, proportionally they are referred for similar disciplinary codes.

In addition to Ethnicity data, data were also collected for the gender of the students who received office referrals for the three years. Table 4.4 (Appendix G) provides the frequency of office referrals reported for males and females by year at School C. Of the total 581 students who were referred for disciplinary codes at School C, 409 were male students and 172 were female students. In 2009, 33 males were referred for level two codes compared to six females. For the 140 students referred for level one codes in 2010, 92 were males and 48 were females. Within the genders, this represented 68.15% of the males and 72.73 of the females. Five females were referred for level three

codes in 2011. Figure 4.6 shows a visual representation of the total proportions of males and females reported for each level of referral, for the three years examined. Although females have a much smaller representation and were referred less, proportionately they are almost identical to males for the different levels of referrals; however, males appear to have a larger proportion of level two referrals.

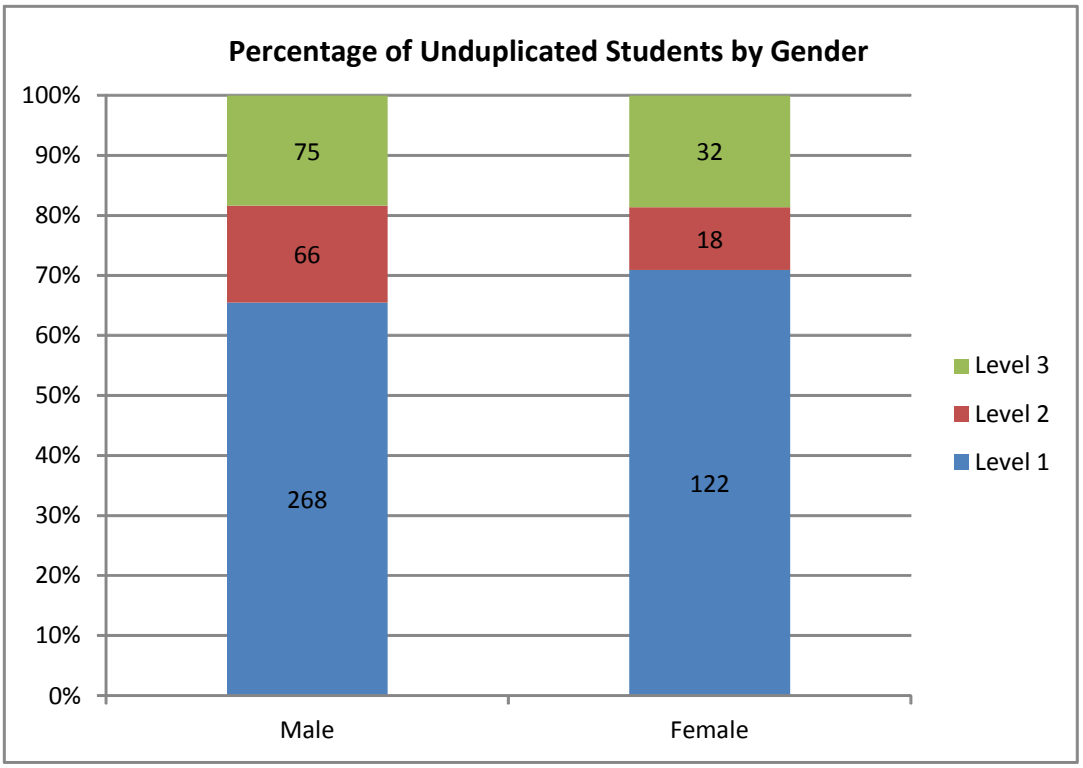

Figure 4.6. Percent of Student Referral Levels by Gender

The total number of student referrals was also compared based on the eligibility for free or reduced meals. The data are shown in Table 4.5 (Appendix H), which provides frequency data on referrals for students who qualified for free and reduced lunch and those who did not. For the 581 students referred at School C, 377 were eligible for free and reduced meals and 204 were not eligible. In 2009, there were similar numbers for level three referrals for students who qualified for free and reduced meals, as compared for those referred that did not qualify. It appears that students who were

eligible for free and reduced meals generally had higher numbers of discipline referrals than those students who did not qualify. These groups show similar referral patterns as evidenced in Figure 4.7.

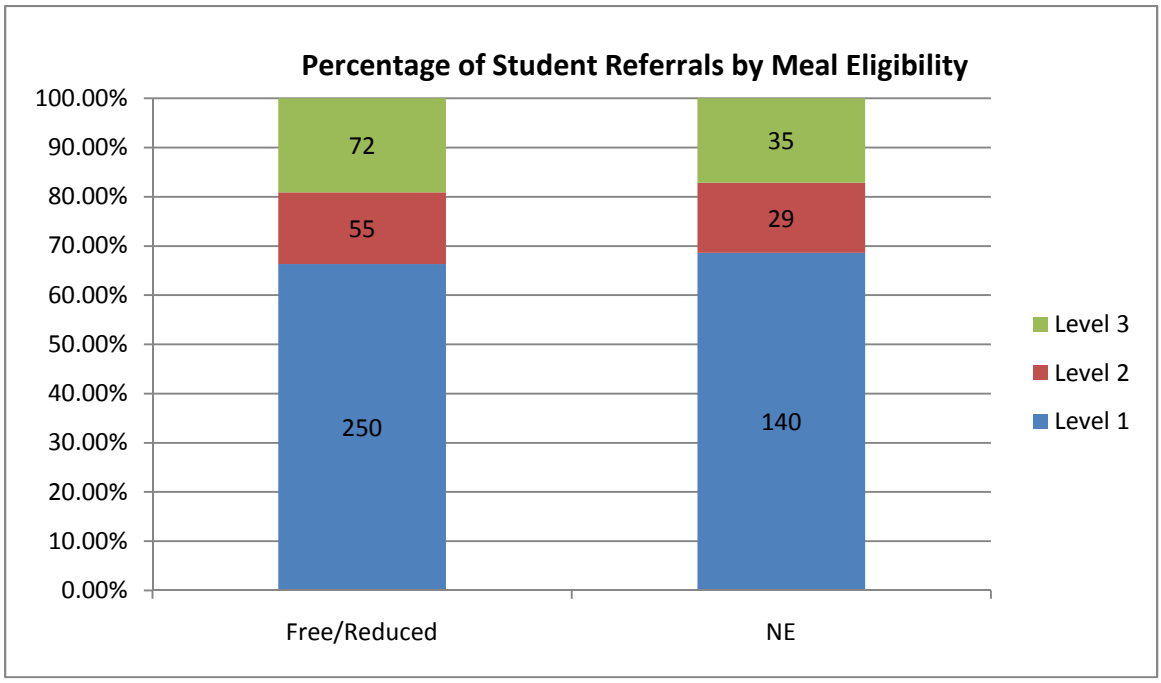

Figure 4.7. Percentage of Student Referral Levels by Meal Eligibility for School C

School A Discipline Data

The second school investigated in the study was School A. School A participated in SWPBIS and the data collected were compared to School C and School B later in the analysis. Data were collected for three years: 2009, 2010, and 2011. Figure 4.8 illustrates the population change over the three years, which indicates little variation.

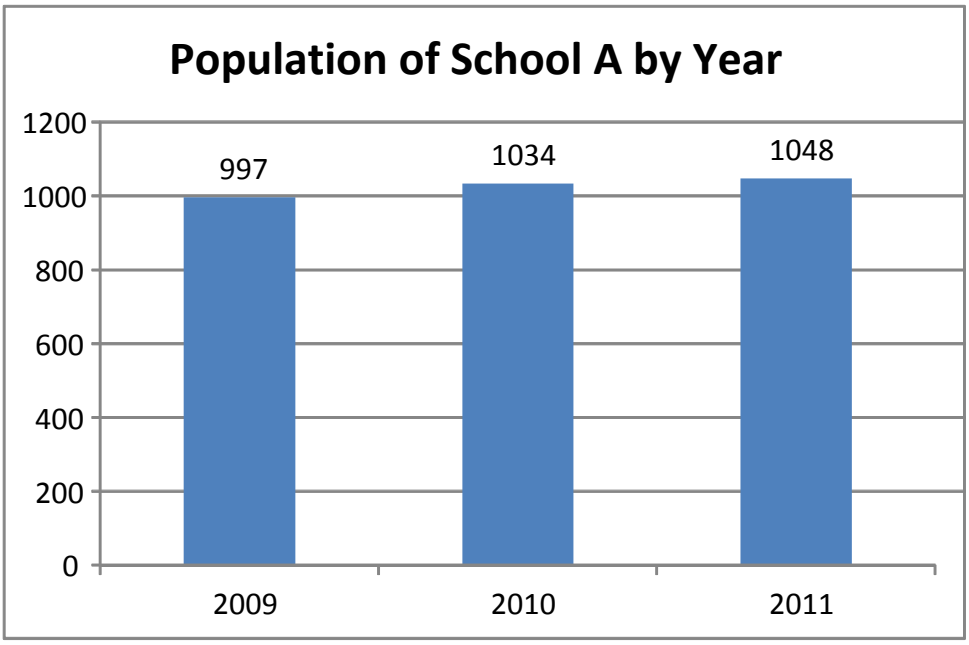

Figure 4.8. Population of School A by Year

Discipline data were collected for the total number of students reported for each of the three disciplinary levels. Recall that level three discipline referrals represented the most severe offenses such as alcohol, arson, battery, drugs, vandalism and weapons. Level two discipline referrals include the offenses of disorderly conduct, fighting and theft. Level one discipline referrals cover all the other discipline incidents and are considered minor infractions. Table 4.6 (Appendix I) shows the number and percent of discipline referrals by level and year at School A. In total, there were 954 unduplicated student records over the three years at School A: 381 records were from 2009, 331 from 2010 and 242 from 2011. From Table 4.6 (Appendix I), it can be discerned that in 2009, 265 (69.55%) of total student records for that year were level one referrals. Level two referrals made up 79 (20.73%) and 37(9.71%) of the referrals were level three. From this data it is apparent that the majority of discipline referrals were for level one minor student infractions. Figure 4.9 illustrates the similar proportions for each of these levels

across the three years of data. In 2011, there appears to be a larger proportion of level two referrals compared to the two previous years.

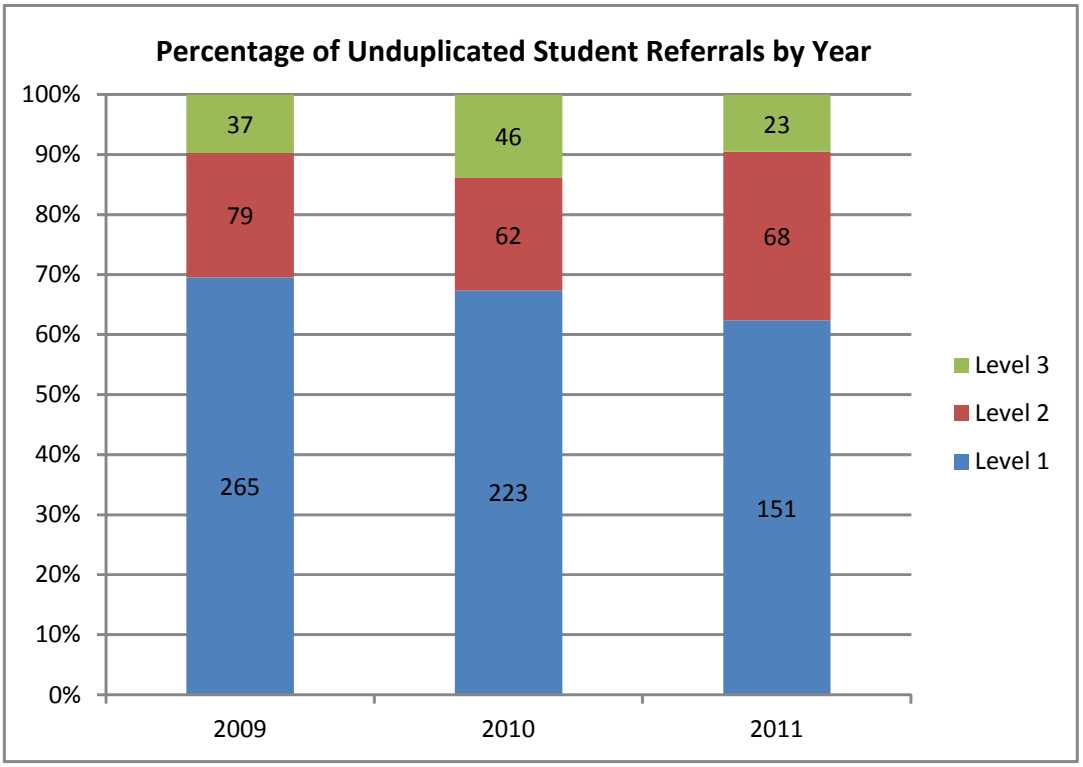

Figure 4.9. Unduplicated Student Referrals at School A

The total number of incident events for School A for each level of discipline over the three years is provided in Table 4.7 (Appendix J). In total, there were 1,728 incident events over the course of the three years. Recall that there were 1,018 incidents at School C for the three years, which indicates a much greater number of referrals for School A. In 2009, there were 737 referrals, 620 in 2010, and 371 in 2011. The total number of incidents decreased each year and the largest decrease occurred between 2010 and 2011. Figure 4.10 displays the proportions of each level of discipline referral over the three years. As seen in the student records, a large increase in the proportion of level two referrals can be noted for 2011, in turn causing a lower proportion of level one referrals. Discipline data for 2009 and 2010 show very simialr proportions between all levels.

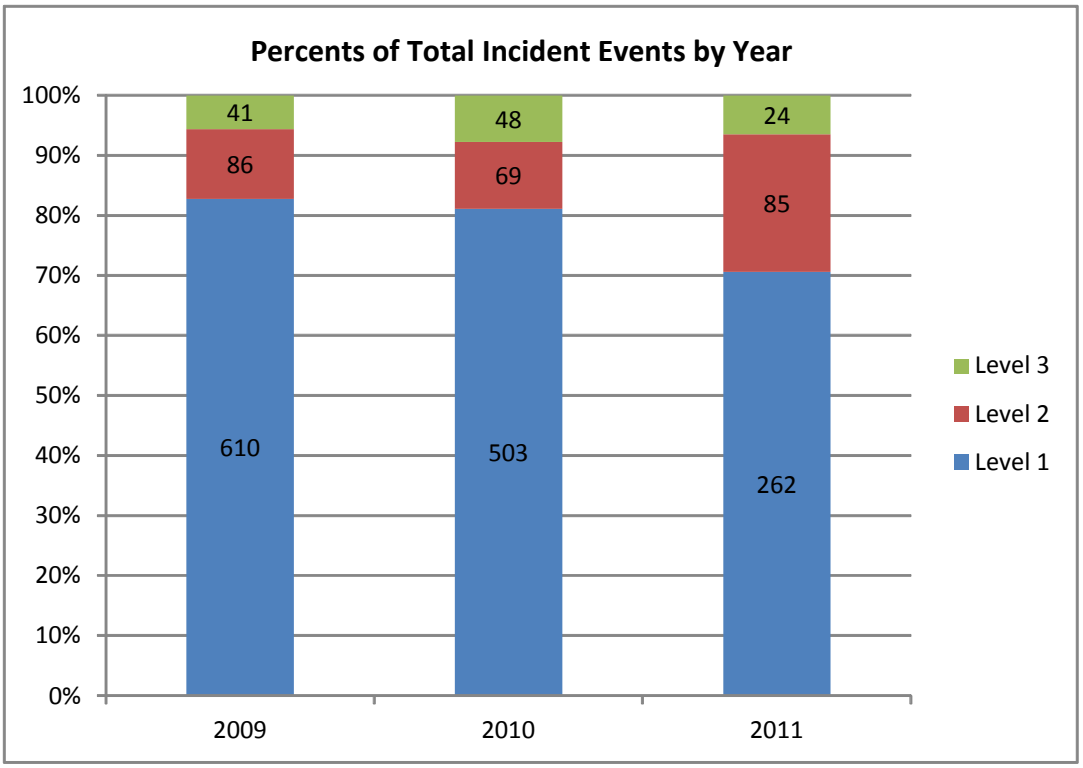

Figure 4.10. Total Incidents at School A by Year

Discipline data for School C were also disaggregated by ethnicity. Table 4.8 (Appendix K) displays the ethnicity data by referral level for the three years under investigation. In total, at School A there were 588 White, 32 Mixed, 262 Black, 1 Asian, 1 Indian, and 70 Hispanic student discipline records. These were categorized into White and "Other" for all other ethnicities and in total made up 366 student discipline records. Compared to the 72 "Other" ethnicity student records at School C, a rather large increase in the records of this category can be noted. This could be due in part to the ethnic makeup of School A's student population and may be of interest for further investigation. Figure 4.11 visually displays a similar proportion for the two groups at School A.

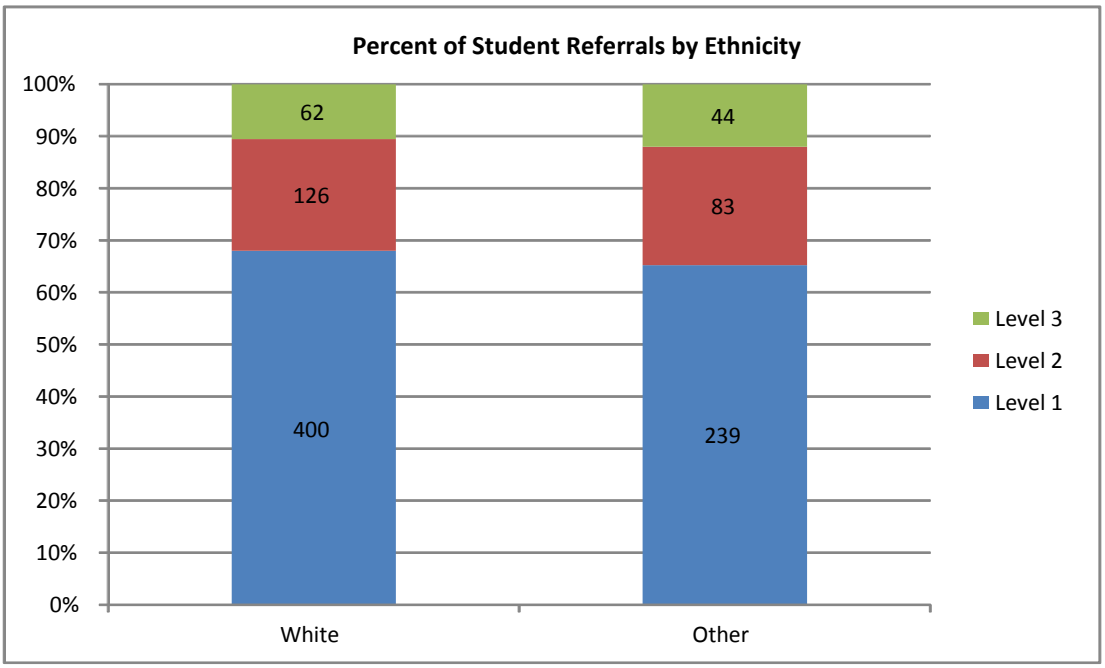

Figure 4.11. Percent of Student Referrals by Ethnicity at School A

Gender data for student discipline data were analyzed at School A, and Table 4.9 (Appendix L) provides information as to the numbers and percentages of discipline data recorded for males and females over the three years. In total for the three years of student records, School A reported 656 male students and 298 female students for various discipline referrals. Of these total records, 443 males were referred for level one (67.53%) compared to 196 females (65.77%); 138 males for level two (21.04%) compared to 71 females (23.83%); and 75 males for level three (11.43%) compared to 31 females (10.40%). These percentages of office referrals issued to boys and girls appear to be very similar at each discipline level and can be seen visually in Figure 4.12.

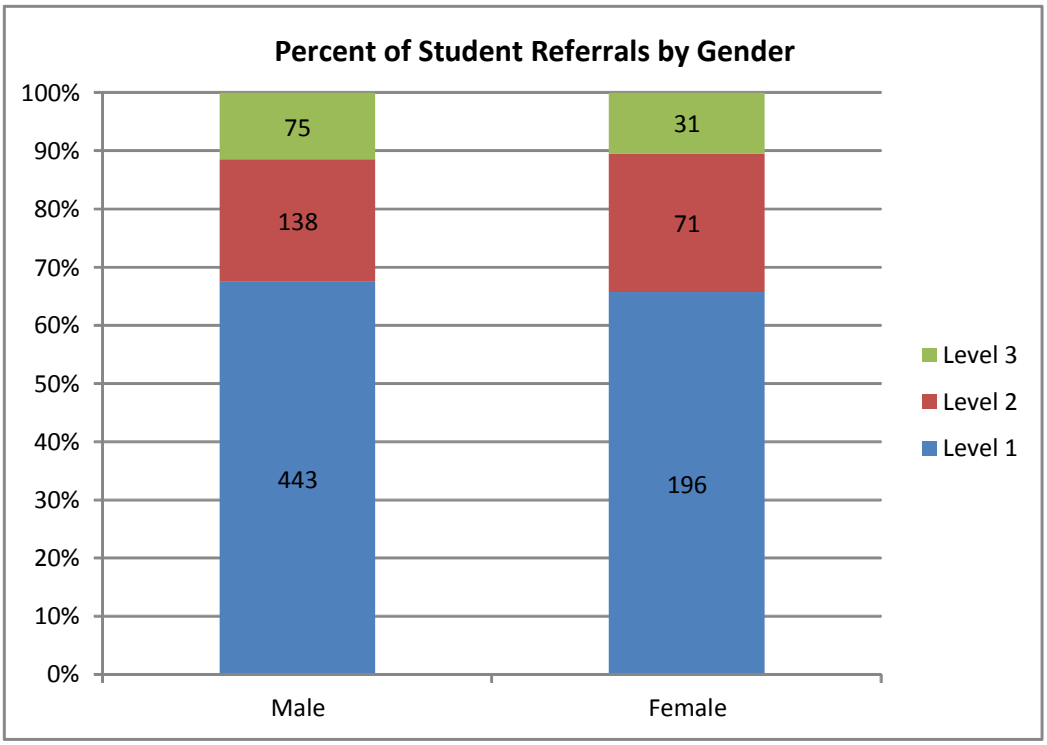

Figure 4.12. Percent of Student Referrals by Gender at School A

Data for free and reduced meal eligibility were collected for School A, and is displayed in Table 4.10 (Appendix M). For the total 954 student discipline records at School A, 545 were student who qualified for free or reduced meals and 309 students were not eligible. Similar to School C, there are a higher number of students with discipline referrals who qualified for free and reduced meals than those who did not. This remains consistent for all three years at School A. Although students who were eligible for free and reduced meals had a higher total number of discipline referrals, these two groups were proportionately the same on the level of office referrals received. The proportions for these groups can be seen in figure 4.13.

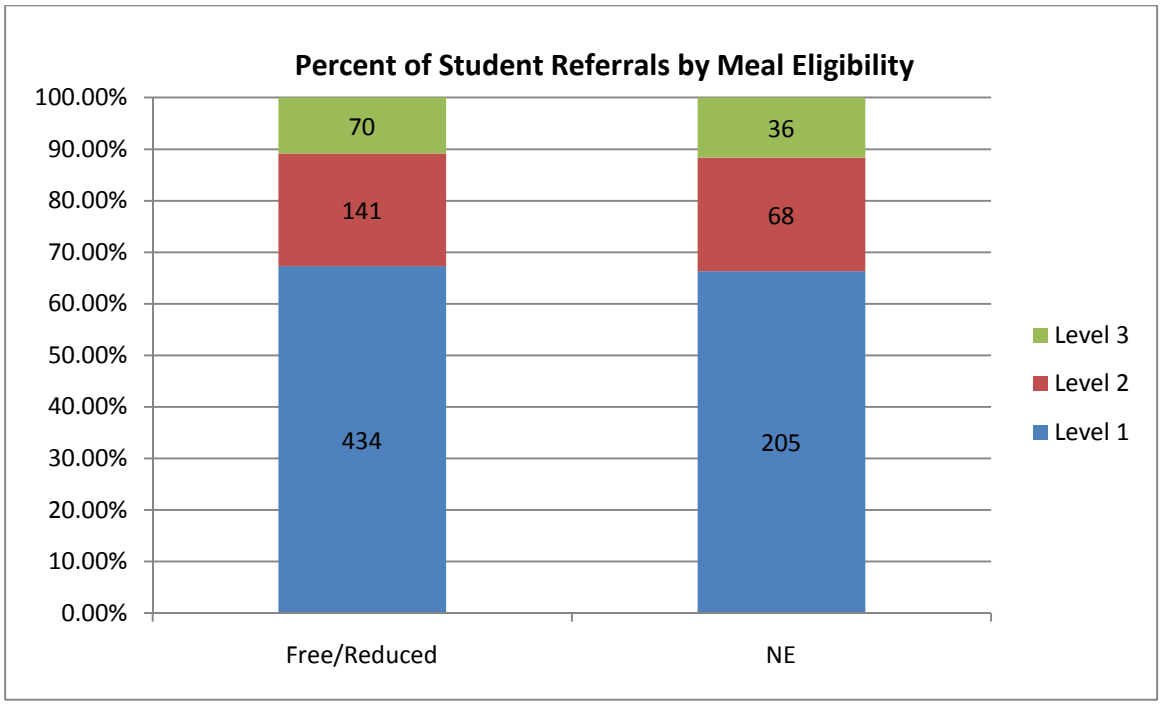

Figure 4.13. Percent of Student Referral Levels by Meal Eligibility for School A

School B Discipline Data

The last school investigated in the study was School B, and data were collected for three years: 2009, 2010, and 2011. School B, like school A also participated in SWPBIS. The population change for the three years is presented in Figure 4.14.

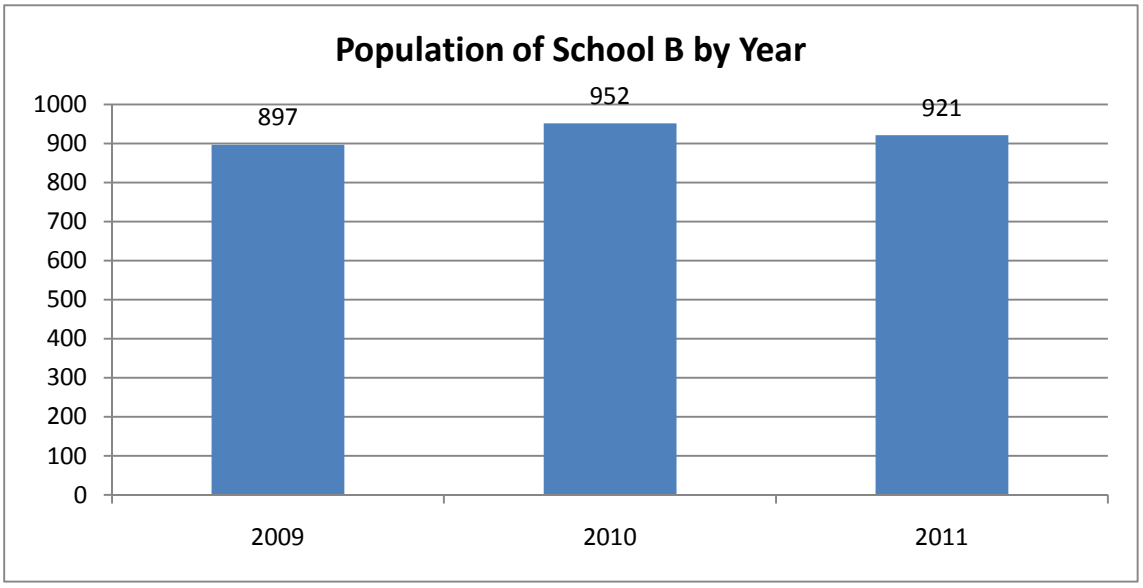

Figure 4.14. Population of School B by Year

As seen in Figure 4.14, there was very little population change during the three years, with the greatest change occuring between 2009 and 2010.

Discipline data were collected for each of the three discipline levels over the three years on the number of unduplicated student discipline referrals. Table 4.11 (Appendix N) provides the number and percentages of discipline referrals at each level for the three years. At School B, there were a total of 701 students referred for various discipline levels over the three years of records. Of these, 265 were referred in 2009, 244 in 2010 and 192 in 2011. In 2010, there was a decrease in the proportion of level two referrals at only 8.20%, compared with 13.21% in 2009 and 15.10% in 2011. The level 1 and 2 values appear to be similar, as evidenced in Figure 4.15.

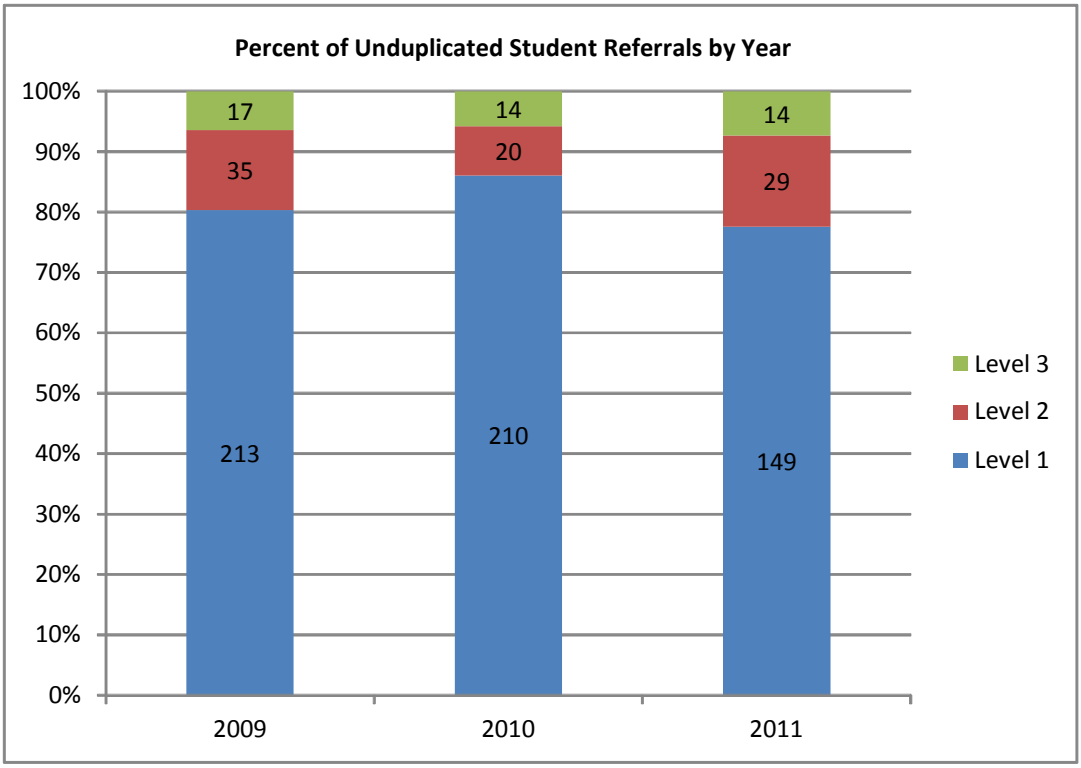

Figure 4.15. Unduplicated Student Referrals at School B

In addition to the unduplicated student referrals, the total number of discipline referrals for School B was recorded for each level over the three years and can be seen in

Table 4.12 (Appendix O). There were a total of 1,661 discipline referrals at School B over the three-year period. As seen with school A, there was a rather large increase in the number of referrals in comparison with School C. The proportions of the incidents at School B, however, are dominated by level one referrals making up 1,523 (91.69%) of the total number of referrals over the three-year period. Level two referrals make up 5.54% with a total of 92 referrals and, lastly, 2.77% or 46 total level three referrals. As the level two and three proportions are small, the graph in Figure 4.16 has been scaled to view the differences in these two levels of referrals. In 2011, there was a larger proportion of level two referrals than the two previous years, making up 8.76% of the total for that year.

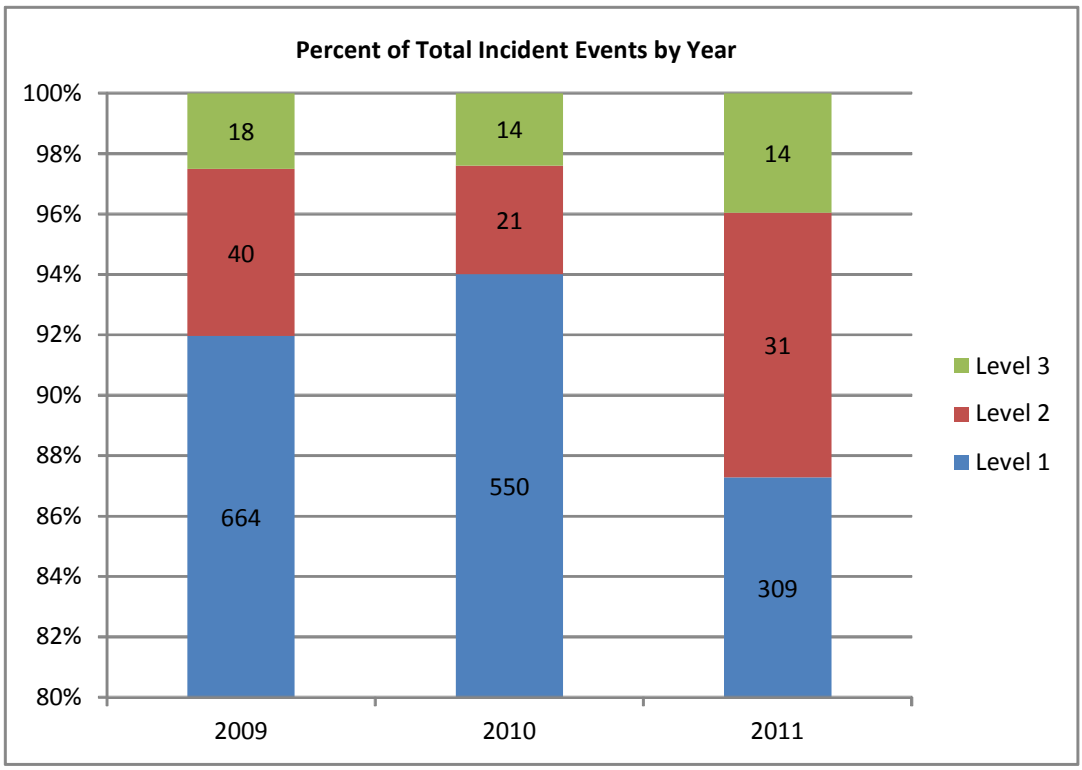

Figure 4.16. Total Incidents at School B by Year

The discipline records were also evaluated and coded for ethnicity. These were categorized into White and "Other" for purposes of the analysis. The number and

percentages of levels of these referrals over the three years can be seen in Table 4.13 (Appendix P). In total, there were 539 White, 41 Hispanic, 1 Asian, 97 Black and 23 Mixed students referred for various disciplinary codes throughout the three years. As noted with School A and School C, these two categories of ethnicity were found to be very similar proportionaltely when comparing the totals as evidenced in Figure 4.17.

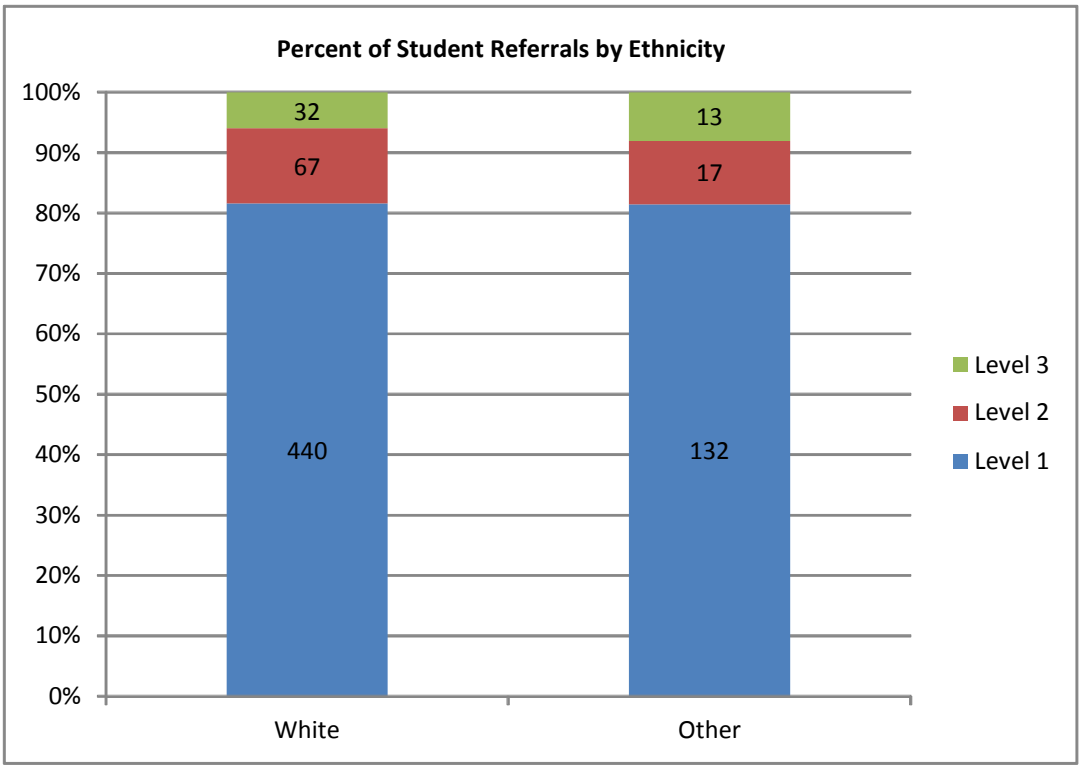

Figure 4.17. Percent of Student Referrals by Ethnicity at School B

Gender was analyzed for the student discipline records at School B and Table 4.14 (Appendix Q) provides the total number and percentages of discipline referrals for males and females during the three years under study. Of the 701 total student referrals at School B, 429 were male students and 209 were female students. For these male students, 405 were referred for level one codes (82.32%), 61 for level two (12.40%), and 26 for level three (5.28%). Similarly, 167 female students were referred for level one (79.90%), 23 were referred for level two (11.00%), and a slightly higher

proportion of 19 female students being referred for level three (9.09%). A comparison of these level three referrals can be seen in Figure 4.18.

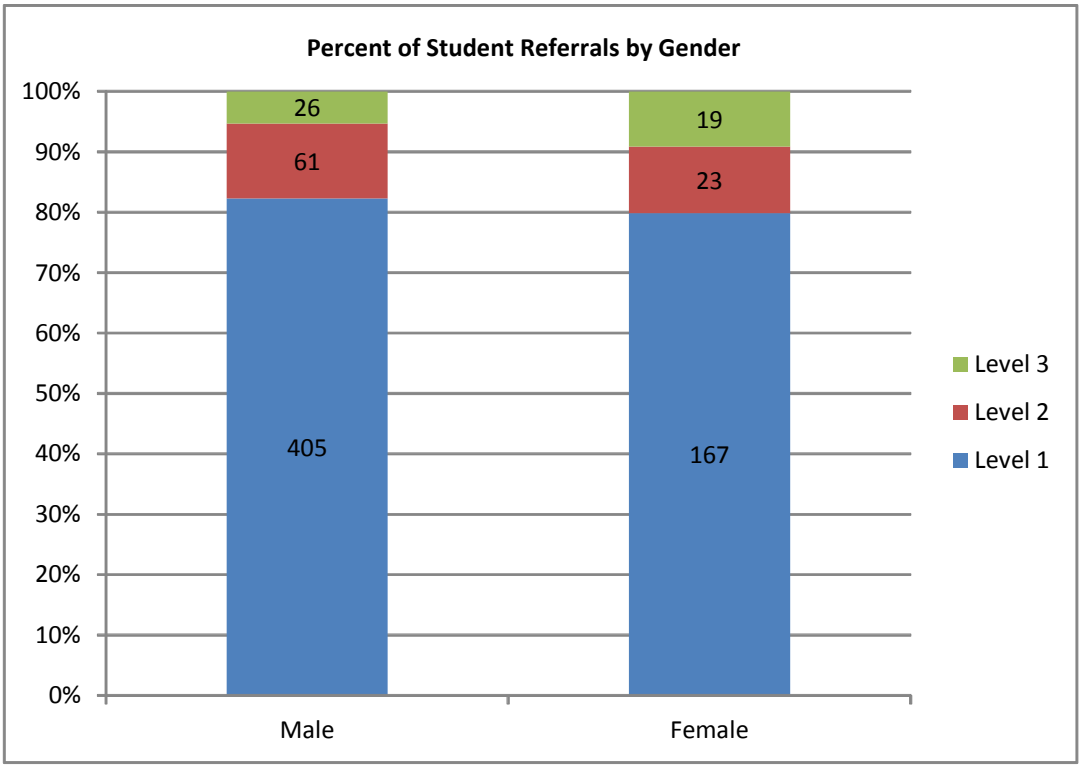

Figure 4.18. Percent of Student Referrals by Gender at School B

Lastly, School B's total student discipline records were analyzed across the categories of free and reduced meal eligibility. These data are presented in Table 4.15 (Appendix R). As seen with Schools A and C, the students eligible for free and reduced meals had higher numbers of referrals across the three years of data. A total of 409 students were referred that were eligible for free or reduced meals, compared to 292 students who did not qualify for free or reduced meals. Proportionally, for level three discipline referrals, students in the free and reduced meals category make up almost twice the amount of referrals as those students who did not qualify for free and reduced meals. These data are compared in Figure 4.19.

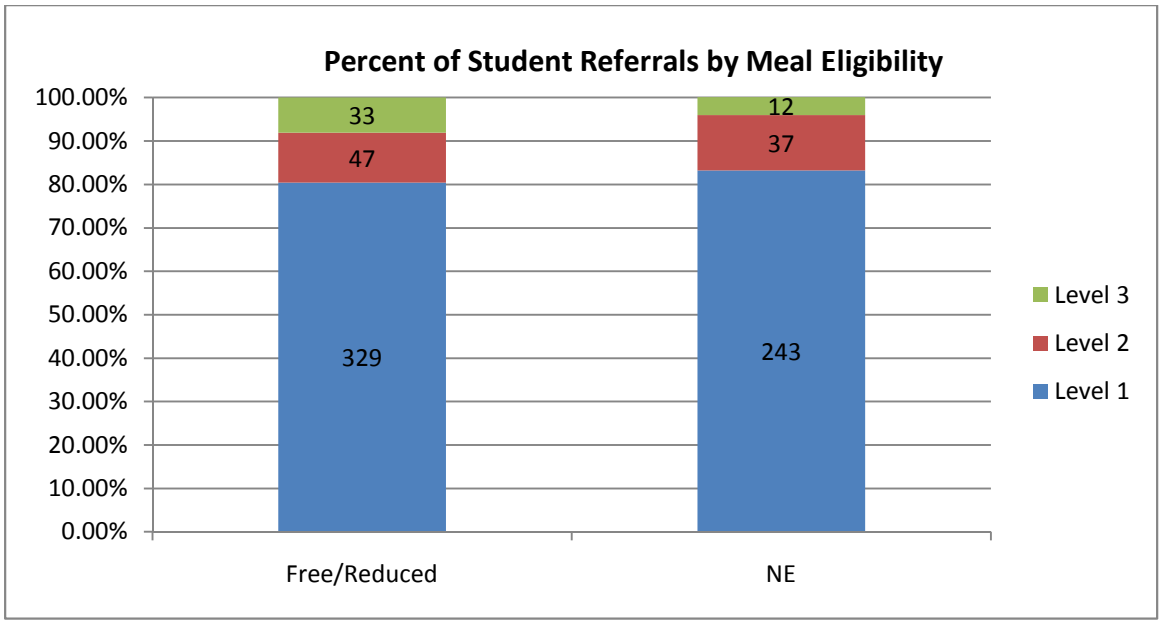

Figure 4.19. Percent of Student Referral Levels by Meal Eligibility for School B

Chi Square-Analysis

A Chi-Square test was used to determine whether or not a relationship existed between the SWPBIS schools and the non-SWPBIS school. In this case, the test was used to determine if the level of student discipline referrals and participation in SWPBIS were related. Statistical tests of significance were conducted using Chi-Square testing.

Research Question 1

Is there a significant difference in the percentage of students referred for level one, level two, and level three discipline referrals between SWPBIS and non SWPBIS schools? The null hypothesis stated that there will be no significant difference between the percentages of level one, level two and level three discipline referrals between SWPBIS schools and non-SWPBIS schools. Of the three schools in the study, School A and School B participated in SWPBIS, and School C did not. Schools that participated in SWPBIS had a slightly higher percentage of total students referred for levels one and two. However, an increase in the percentage of students referred for level three in School

C is noted. The observed counts of student referrals by SWPBIS status can be seen in Table 4.16.

Table 4.16

Observed Counts of Student Referrals by SWPBIS Participation

	Level 1		Level 2		Level 3		Total	
	n	%	*n*	%	*n*	%	*n*	%
SWPBIS								
0	390	67.13	84	14.46	107	18.42	581	100.00
1	1211	73.17	293	17.70	151	9.12	1,655	100.00
Total	1601	71.60	377	16.86	258	11.54	2,236	100.00

Note. A SWPBIS value of "0" indicates that the school does not participate; in this case, it represents School C. A value of "1" represents a school that does participate in the program (Schools A and B).

Visually, this relationship is shown in Figure 4.20.

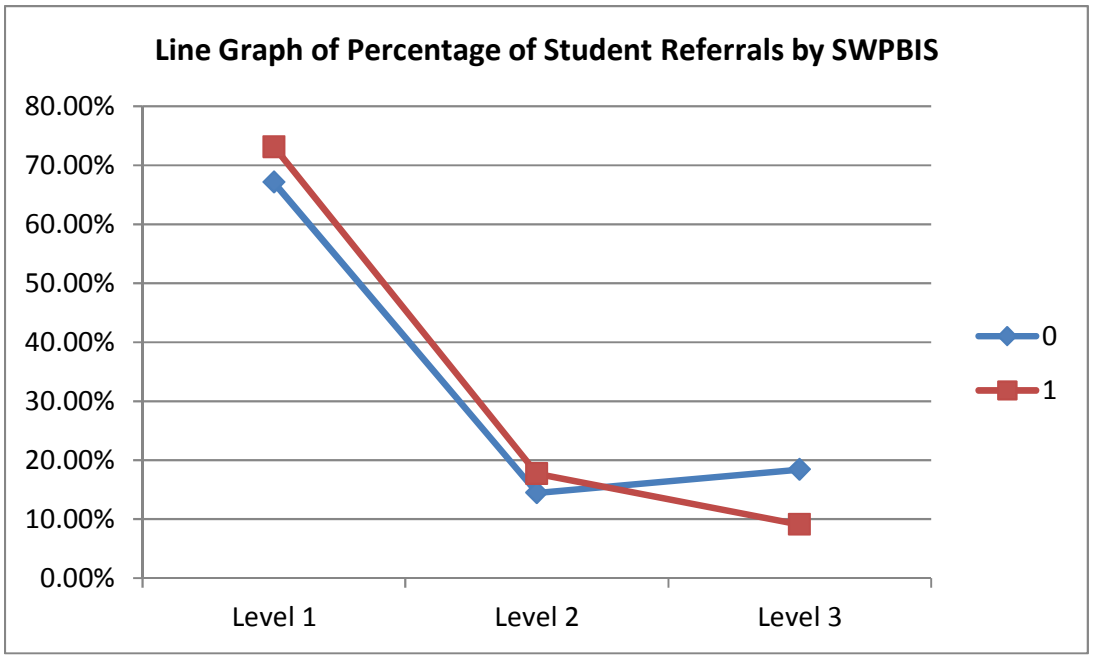

Figure 4.20. Percentage of Student Referrals by SWPBIS

Schools that participated in SWPBIS had a slightly higher percentage of total students referred for levels one and two. However, an increase in the percentage of students referred for level three in School C is noted.

In order to display a test for the relationship between the variables in question one, a table of the expected values was created. This was based on the total of student records for each level and the total amount of records on file. The table of expected values is the expected number of student referrals for each of these levels if there was no relationship. This table can be seen below along with the observed counts in Table 4.17.

Table 4.17

Table of Observed and Expected Counts of Discipline Referrals for SWPBIS Participation

SWPBIS	Level 1	Level 2	Level 3	Total
Observed				

0	390	84	107	581
1	1,211	293	151	1,655
Total	1,601	377	258	2,236
Expected				
0	416	98	67	581
1	1,185	279	191	1,655
Total	1,601	377	258	2,236

Note. A SWPBIS value of "0" indicates that the school does not participate; in this case, it represents School C. A value of "1" represents a school that does participate in the program (Schools A and B).

Research question 1 findings. The Chi-Square test was run and the resulting χ^2 (2) = 36.26. The p-value was reported to be highly significant at .000000008933 ($p < 0.0001$) Therefore, the level of referrals and SWPBIS status are related and the null hypothesis stating that there is no significant difference in the number of discipline referrals at each level between SWPBIS and non-SWPBIS schools may be rejected..

Research Question 2

Is there a significant difference in the distribution of discipline referrals each year within each participating school? The null hypothesis stated that there would be no significant difference in the total number of office referrals each year within the same school. This question was answered using a series of Chi-Square tests. Each school was investigated individually and each pair of years was tested. The levels of discipline referrals for 2009 were tested against 2010; 2010 against 2011; and finally, 2009 was tested against 2011 within each of the three schools. The first school investigated was School C, which did not implement SWPBIS. The observed and expected counts of

discipline referrals between 2009 and 2010 were tested first. Table 4.18 shows the observed and expected counts of discipline referrals at each level for School C by year.

Table 4.18

2009 v. 2010 Observed & Expected Counts of Discipline Referrals for School C

Year	Level 1	Level 2	Level 3	Total
Observed				
2009	323	42	56	421
2010	312	24	46	382
Total	635	66	102	803
Expected				
2009	333	35	53	421
2010	302	31	49	382
Total	635	66	102	803

The calculated $\chi^2(2) = 5.49$. A *p*-value of 0.12271481 was found for this set of years. This is not significant because it falls above the rejection region of .05, and it cannot be concluded that the distributions of the years 2009 and 2010 are statistically different.

Next, the years 2010 and 2011 were tested. Table 4.19 contains the observed and expected counts of these years for School C.

Table 4.19

2010 v. 2011 Observed & Expected Counts of Discipline Referrals for School C

Year	Level 1	Level 2	Level 3	Total
Observed				
2010	312	24	46	382
2011	174	24	17	215
Total	486	48	63	597
Expected				
2010	311	31	40	382
2011	175	17	23	215
Total	486	48	63	597

For these data χ^2 (2) = 6.94. The *p*-value was found to be 0.042571239, which falls within the reject region and therefore it was concluded that for the years 2010 and 2011 the distributions are significantly different.

Lastly, the years 2009 and 2011 were tested for School C. The observed and expected counts for these years can be seen in Table 4.20.

Table 4.20

2009 v. 2011 Observed & Expected Counts of Discipline Referrals for School C

Year	Level 1	Level 2	Level 3	Total
Observed				
2009	323	42	56	421
2011	174	24	17	215

Total	497	66	73	636
Expected				
2009	329	44	48	421
2011	168	22	25	215
Total	497	66	73	636

The discipline procedures at School C appear to have no effect on the distribution of office referrals between the 2009 and 2010 school years. The Chi-square test was run and the data yielded a $\chi^2(2) = 4.12$. The calculated *p*-value was 0.127191559, which is greater than the alpha value of .05. This fails to reject the null hypothesis and it cannot be concluded that these distributions are significantly different.

Next, the same pairs of years were tested for School A. School A did participate in SWPBIS. First, the years 2009 and 2010 were tested. Table 4.20 provides the observed and expected values of discipline referrals for the three levels at School A.

Table 4.21

2009 v. 2010 Observed & Expected Counts of Discipline Referrals for School A

Year	Level 1	Level 2	Level 3	Total
Observed				
2009	610	86	41	737
2010	503	69	48	620
Total	1,113	155	89	1,357
Expected				
2009	603	85	49	737

2010	510	70	40	620
Total	1,113	155	89	1,135

For these data a χ^2 (2) = 2.63 and yielded a $p > .05$ (0.267995). These results indicate that it cannot be concluded that these two distributions are significantly different.

A second test was conducted on the data comparing the 2010 and 2011 school years. The observed and expected values are provided in Table 4.22.

Table 4.22

2010 v.2011 Observed & Expected Counts of Discipline Referrals for School A

Year	Level 1	Level 2	Level 3	Total
Observed				
2010	503	69	48	620
2011	262	85	24	371
Total	765	154	72	991
Expected				
2010	479	96	45	620
2011	286	58	27	371
Total	765	154	72	991

A highly significant *p*-value of .00000461 was obtained from a χ^2 (2) = 24.57. Because the *p*-value associated with the years 2010 and 2011was significantly less than .05, the

null hypothesis was rejected for these two years and it was concluded that they are related and these distributions are significantly different.

Lastly, the years 2009 and 2011 were tested for School A. Table 4.23 shows the output for this test.

Table 4.23

2009 v. 2011 Observed & Expected Counts of Discipline Referrals for School A

Year	Level 1	Level 2	Level 3	Total
Observed				
2009	610	86	41	737
2011	262	85	21	371
Total	872	171	65	1,108
Expected				
2009	580	114	43	737
2011	292	57	22	371
Total	872	171	89	1,108

A Chi-square test was run and a highly significant *p*-value of .0000034 was found for these paired years. There was strong evidence found to reject the null and thus conclude that these years are related and the distributions are different.

Further, the data for School B was analyzed for each of the three years on levels of discipline referrals. School B also participated in SWPBIS. The data for the first two years, 2009 and 2010 are found in Table 4.24.

Table 4.24

2009 v. 2010 Observed & Expected Counts of Discipline Referrals for School B

Year	Level 1	Level 2	Level 3	Total
Observed				
2009	664	40	18	722
2010	550	21	14	585
Total	1,214	61	32	1,307
Expected				
2009	670	34	18	722
2010	544	27	14	585
Total	1,214	161	32	1,307

A Chi-square test was administered and for these data the results were found to be χ^2 (2) = 2.79. The calculated p-value was .247404014. As $p > .05$ the null was accepted and concluded that these paired years are not related.

The years 2010 and 2011 were compared next for School B. The observed and expected values for these years are shown in Table 4.25.

Table 4.25

2010 v. 2011Observed & Expected Counts of Discipline Referrals for School B

Year	Level 1	Level 2	Level 3	Total
Observed				

2010	550	21	14	585
2011	309	31	14	354
Total	859	52	29	939
Expected				
2010	535	32	18	585
2011	324	20	10	354
Total	859	52	28	939

The test yielded a χ^2 (2) = 13.52 and the resulting *p*-value was .001154004. This falls within the rejection region, and it was concluded that these years are related and the distributions are significantly different than one another.

The final two years 2009 and 2010 were compared and the results are presented in Table 4.26.

Table 4.26

2009 v. 2011 Observed & Expected Counts of Discipline Referrals for School B

Year	Level 1	Level 2	Level 3	Total
Observed				
2009	664	40	18	722
2011	309	31	14	354
Total	937	71	32	1,076

Expected				
2009	653	48	21	722
2010	320	23	11	354
Total	973	71	32	1,076

The Chi-square test for these data returned a χ^2 (2) = 6.00 and a *p*-value of 0.049617644. Because p < 0.05, there was support to reject the null hypothesis for these two years and it was concluded that the years are related and the distributions were found to be significantly different.

Research question 2 findings. The data from each Chi-squared test were collected between each year on each school and evaluated separately. Table 4.27 provides the data for Chi-square analysis and the resulting p-values for paired years at each school.

Table 4.27

Significance of Discipline Referrals within Each School

Paired Year	*df*	χ^2	Significance
		School C	
2009/2010	2	5.49	$p > 0.05$
2010/2011	2	6.94	$p < 0.05$
2009/2011	2	4.12	$p > 0.05$
		School A	
2009/2010	2	2.63	$p > 0.05$

2010/2011	2	24.57	$p < 0.001$
2009/2011	2	25.18	$p < 0.001$
		School B	
2009/2010	2	2.79	$p > 0.05$
2010/2011	2	13.52	$p < 0.01$
2009/2011	2	6.00	$p < 0.05$

In School C, the only paired years where the null hypothesis can be rejected is between 2010 and 2011. For two of the data sets at School C, 2009/2010 and 2009/2011, the null was accepted and it was concluded that there is no relationship between the distribution of discipline referrals at each level of discipline for these years.

Data reported from School A provide strong evidence indicating two sets of paired years, 2010/2011 and 2009/2011, are highly significant at $p < 0.001$. Because these show strong and highly significant relationships, the null hypothesis for these years was rejected and it was concluded that these years are related and the distributions were found to be significantly different.

As Table 4.26 shows, School B also indicated significant *p*-values for the paired years of 2010/2011 and 2009/2011. As the data indicate a significant relationship, the null hypothesis was rejected for these years and it was concluded that for these years, the distributions of discipline referrals were found to be significantly different.

Research question 3

Is there a difference between schools SET scores and the percentage of discipline referrals in SWPBIS schools and non-SWPBIS schools? School-wide Evaluation Tool (SET) survey data were collected and scored for all three schools. The SET provides information on the schools consistency in implementing discipline policies and procedures. The scores are reported in percentages from 0% to 100% and schools reporting a score of 80% or above were considered to be implementing effective and consistent school-wide discipline systems. Results from the SET surveys can be seen in Table 4.28.

Table 4.28

SET Score by School

School	SET Score %
School C	29.5
School A	88.5
School B	93.6

This research question was answered descriptively because no statistical test can be run since there is no variance provided with the three percentage scores alone. As seen in Table 4.28, it was found that School C has a much lower SET score than Schools A and B. This is more than likely attributed to the fact that School C did not participate in SWPBIS. School-wide Evaluation Tool scores reflect the level at which schools participate and implement a system approach to school-wide effective behavior and support. In order to further investigate the research question, the schools were compared based on the total percentage of discipline referrals compared to their SET scores. The

data for the percentage of discipline referrals at each level by SWPBIS can be seen in Table 4.29.

Table 4.29

Table of Percentage of Discipline Referrals by SWPBIS

	Level 1		Level 2		Level 3		Total	
	n	%	*n*	%	*n*	%	*n*	%
SWPBIS								
0	809	79.47	90	8.84	119	11.69	1,018	100.00
1	2,898	85.51	332	9.80	159	4.69	3,389	100.00
Total	3,707	84.12	422	9.58	278	6.31	4,407	100.00

Research question 3 findings. From Table 4.29, comparisons can be made between each level of discipline referrals as well as the total number of referrals for each category of SWPBIS. A SWPBIS value of "0" indicates that the school did not participate (School C) and a value of "1" is representative of participation in SWPBIS (Schools A and B). As seen in Table 4.29, the two SWPBIS schools indicate a slightly larger proportion of discipline at level one; however, level three discipline shows that School C, the non-SWPBIS school, reports a percentage more than double that of the two SWPBIS schools. The percentages of students reported for level two behaviors are proportionally very similar at 8.84% for the non-SWPBIS school and 9.80% for the

SWPBIS schools. From the data provided, it appears that the schools with a higher SET score displayed a lower percentage of level three referrals.

Summary

Data on student discipline referrals were collected and analyzed for three middle schools in one North Georgia school system to compare two schools within the system that implement SWPBIS to one that does not. Descriptive statistics were used to analyze data on numbers and percentages of office referrals for three years at each school. Data were also disaggregated by school on ethnicity, gender, and socioeconomic status as reported by free and reduced meal eligibility. Analysis from descriptive statistics revealed similar proportions of student referrals distributed across each level of discipline for these subgroups.

Chi-square analysis provided support for the first research question in testing whether or not there was a significant difference in the percentage of students referred for level one, two, and three discipline referrals between the SWPBIS schools and the non-SWPBIS school. This test produced a highly significant $p < .001$, thus rejecting the null hypothesis and concluding that the percentages of students referred among the levels and SWPBIS participation were in fact related and there was a significant difference found.

The second research question was then addressed testing for significant differences in the distributions of discipline referrals each year within each participating school. For School A, data for 2010 versus 201, as well as 2009 and 2011 revealed statistically significant distributions, both evidenced by highly significant Chi-square statistics. School B showed statistical significance between 2010 and 2011, as well as for 2009 and 2011. School C was shown to have significantly different distributions for

paired years 2010 and 2011. In short, two of the three paired years at Schools A and B showed statistically significant differences, and only one paired year at School C showed a difference in the distributions of discipline referrals.

The final research question investigated the difference between schools' SET scores and the percentage of discipline referrals in the SWPBIS schools and the non-SWPBIS school. Although no test of significance was able to be conducted, a descriptive analysis was completed that indicated the two SWPBIS schools (schools A and B) had lower percentages of level three discipline referrals than the non-SWPBIS school (school C).

CHAPTER FIVE: DISCUSSION

Summary of Findings

Dealing with student discipline problems continues to be a challenge for educators. Classroom disruptions and other serious behavior problems often result in disciplinary action that removes a student from the classroom and the instructional setting. Schools faced with meeting the academic requirements of the NCLB are searching for ways to decrease the number of discipline problems and implement strategies that reduce negative student behaviors that lead to a loss of instructional time. School-wide Positive Behavior Interventions and Supports (SWPBIS) is one approach suggested by researchers to reduce the numbers of negative behaviors that lead to office discipline referrals in schools. While current research suggests that implementing SWPBIS reduces the number of office discipline referrals in schools, there are few studies that focus on the types of behaviors that are reduced (Horner et al., 2009).

The purpose of this research study was to determine whether or not there is a difference in types of discipline referrals in three middle schools based on the presence or absence of SWPBIS. Three questions were investigated to determine the relationship between SWPBIS and the percentages of discipline referrals recorded in schools with and without SWPBIS.

Research Questions and Hypotheses

In order to discuss the findings of this research study it is important to reconsider the research questions and hypotheses for this study. Several research questions and hypotheses were developed and underpin this study.

Research Questions

- Research question 1: *Is there a significant difference in the percentage of students referred for level one, level two and level three discipline referrals between SWPBIS and non-SWPBIS schools?*
- Research question 2: *Is there a significant difference in the distribution of discipline referrals each year within each school?*
- Research question 3: *Is there a difference between school's SET scores and the percentage of discipline referrals in SWPBIS schools and non-SWPBIS schools?*

Research Hypothesis

Research hypothesis 1. A statistically significant difference will exist in the percentage of level one, level two, and level three discipline referrals between SWPBIS and non-SWPBIS schools. The null hypothesis stated: There will be no significant difference in the level one, level two, and level three office referrals between SWPBIS and non-SWPBIS schools.

Research hypothesis 2. A statistically significant difference will exist in the distribution of discipline referrals each year within the same school. The null hypothesis stated: There will be no significant difference in the distribution of discipline referrals each year within the same school.

Research hypothesis 3. There will be differences in the percentages of discipline referrals at each level of discipline between SWPBIS and non-SWPBIS schools.

Student discipline data from each school were recorded and entered into the BASE SAS 9.2 statistical software program for analysis. Both descriptive statistics and Chi-Square analysis were utilized for this study. Data were also disaggregated by demographic subgroups at each school for purposes of discussion.

Findings for Research Question 1

The Chi-square test reported a χ^2 (2) = 36.26 and a $p < .0001$. Because this is highly significant, the null was rejected and the research hypothesis was accepted that a statistically significant difference exists in the percentage of students referred for level one, level two, and level three discipline referrals between SWPBIS and non-SWPBIS schools.

Findings for Research Question 2

Chi-square analysis ranged from 4.12 to 6.94 for the paired years in School C. For two of the paired years at School C, 2009/2010 and 2009/2011, $p > .05$ and no significant difference was determined between the percentages of referrals recorded at each level of discipline. For these paired years, the null was accepted. The 2010/2011 paired analysis calculated a $p < .05$ and at least for this set of data did indicate a statistically significant difference between these paired years at School C, and the null hypothesis was rejected.

Data reported for School A and B were somewhat more similar. For both schools, only one set of paired years, 2009/2010, produced a $p > .05$, indicating that for these years there was no statistical significance in the percentages of discipline referrals reported for each level. For these paired years at each school, the null hypothesis was accepted and it was concluded that there is no relationship between SWPBIS and the percentage of discipline referrals reported at each level. However, the next two sets of paired years, 2010/2011 and 2009/2011, produced a $p < .05$ for School B, and a $p < .001$ for School A, providing evidence of a statistical difference for school B and highly statistical difference for school A in the percentage of office referrals at each level of

discipline within these same schools respectively. For these two sets of paired years at each school, the null hypothesis was rejected and the research hypothesis was accepted. Interpretation of this data suggests that for SWPBIS schools, the numbers of discipline incidents are reduced significantly with implementation of a school-wide behavior management plan.

These results, which indicate only one set of paired years having significantly fewer discipline referrals in School C, could be suggestive of the absence of a defined system of behavior intervention and consequences. SET score data from School C indicate that teachers do not have a documented system for teaching students behavioral expectations in the school, nor do teachers even agree at to which behaviors should or should not receive an office referral. A student, who may have received several office referrals one year, may not receive office referrals the next for similar behaviors based on differences in teacher opinion. In the SWPBIS schools, teachers have been included in the decision making process to determine which behaviors result in office referrals. Research supports that when teachers are included in the decision making process for behavior management systems then office discipline referrals are more likely to decline significantly over time (Luiselli, Putnam, Handler, & Feinberg, 2005).

Findings for Research Question 3

Survey data were collected and scored at each school using the School-wide Evaluation Tool (SET). The purpose of the SET is to evaluate the consistency of implementing discipline policies and procedures throughout the school. A score of 80% on the SET for teaching behavioral expectations indicates the school is implementing school-wide positive behavior support at a universal level. Because there is no variance

given with just the three scores for each school, these data were analyzed descriptively. Scores for each school were reported to be (a) 29.5% for School C, (b) 88.5% for school A, and (c) 93.6% for School B. These scores indicated that schools A and B were implementing SWPBIS at a universal level and School C was not. School-wide Evaluation Tool score data were then compared to the percentages of office referrals reported at each level of discipline for each school. The two schools that implemented SWPBIS indicated a slightly larger proportion of total school discipline at level one (minor discipline problems), 85.51% (SWPBIS) to 79.47% (non-SWPBIS). Percentages of discipline referrals for level two were proportionally similar at 8.84% for the non-SWPBIS school and 9.80% for the two SWPBIS schools. The largest difference in percentage of discipline referrals reported occurred at level three (serious offenses). The non-SWPBIS school reported to have more than doubled the percentage of discipline referrals (11.69%) than that of the SWPBIS schools (4.69%) for the three years under study. These data were further analyzed among the three schools on levels and years of recorded discipline referrals and compared to each school's SET scores. School B, with the highest SET score (93.6%), was found to have the largest percentage of discipline referrals at level one (91.69%) and the lowest percentages of level two (5.54%) and three (2.77%) referrals. School A reported the second highest SET score (88.5%) and reported the second largest percentages of level one discipline referrals (79.57%). While School A did report a larger percentage of level two referrals than the other two schools (13.89%), level three discipline referrals were reported to be 6.54% of the total school discipline referrals, which was still much lower than School C at 11.69%. Analysis of these data suggests that schools with a higher SET score appear to have higher

percentages of level one discipline referrals and lower percentages of level three discipline referrals when compared to a non-SWPBIS school. One reason for these findings may be in the structure provided by the SWPBIS schools and consistency of teacher feedback in the form of rewards or consequences for exhibited student behaviors. As teachers enforce the lesser level one student behaviors and administrators are consistent with discipline steps, students understand that there are consequences for their actions. The more severe the behavior, the more severe the consequence, therefore students are less likely to engage in behavior that may result in long term suspension from school or lead to criminal charges.

Discussion

As Gable et al. (2010) noted, researchers for the past 40 years have studied the effects of how different forms of discipline have impacted school environments and student behaviors. These studies have informed how educators have implemented classroom management strategies and planned for effective management of student discipline. In addition, federal and state mandates have recently directed decisions made by educational leaders on how to implement discipline measures in schools and classrooms. The 2001 NCLB legislation requires that schools adopt research-based strategies to close the achievement gap in student performance between subgroups and the general population. To do this, it is important to reduce the level of classroom disruptions and students being referred for disciplinary outcomes that remove students from the classroom and lead to a loss of instructional time.

The NCLB legislation also mandates that states increase student attendance and provide provisions that improve the overall culture and climate of the school's learning

environment (Muhammad, 2009). One stipulation of the law, the Unsafe School Choice Option, allows parents the right to request transfers out of schools that are reported "unsafe" or persistently dangerous as identified through student information systems that track discipline data through state reporting (U.S. Department of Education, 2010).

In addition to NCLB, Response to Intervention (RTI) was introduced through the reauthorization of the Individuals with Disabilities Education Act (IDEA) of 2004 (Fuchs & Fuchs, 2006). RTI, a federal requirement, included a new approach to identify and help students who were at risk of being labeled as behavior problems. In the RTI three-tiered behavior model, all students are taught appropriate behaviors to be successful in the general school environment at tier one, specific interventions are made for small groups of students who struggle at tier two, and individual instruction is provided for targeted behaviors at tier three (Shores and Chester, 2009). Recent studies conducted by Sherrod et al. (2009), Thompson & Webber (2010), and Tidwell et al. (2003), have shown that RTI interventions have had a positive impact on reducing negative behaviors when implemented at all three levels.

School-wide Positive Behavior Interventions and Support (SWPBIS) is a tiered model of behavioral intervention many administrators have implemented to improve the overall climate and reduce the numbers of problem behaviors that occur in schools (Lassen, Steele, & Sailor, 2006). Lohrmann et al. (2010) recognized that the purpose of this intervention was preventative and that through teaching behavioral expectations and rewarding appropriate behaviors to all students in the school setting, negative student behaviors would decrease. Consequentially, Pool et al. (2010) emphasized the importance of teacher buy-in and the development of teacher focus groups to support and

provide consistency in the development and instruction of acceptable behaviors for implementing successful programs. Research conducted on SWPBIS schools by Horner et al. (2009) documented up to 50% reduction in discipline referrals over a three-year period, and Bradshaw, Mitchell, and Leaf (2009) discovered students in SWPBIS schools were 35% less likely to receive a discipline referral than non-SWPBIS schools.

Despite these positive results, Lohrnamm et al. (2008) revealed many teachers are reluctant to adopt school-wide approaches to address student discipline problems due to four factors: (a) lack of administrative support, (b) skepticism of need, (c) hopelessness of change, and (d) philosophical differences. Teachers' perceptions or attitudes about their school can help determine the school's climate or culture. Deliso (2005) proposed that schools with large numbers of discipline problems contribute to a toxic environment, just as teachers who perceived discipline being handled inconsistently also contributed to the negative perception of school climate. Sprague et al. (2011) proposed that when all adults worked together to teach expected behaviors consistently, then the number of discipline referrals would be reduced and the overall climate and culture of the school would improve. The analysis of student discipline data for this current study revealed that schools implementing SWPBIS with a SET score above 80% do show a significantly lower percentage of level three office referrals than non-SWPBIS schools.

Implications of the Findings

The research findings in this study could have implications for educational leaders looking for ways to reduce student discipline problems in schools. Implications of this research relate to decisions involving legal mandates, teacher perceptions, and school culture.

Legal Mandates

The NCLB legislation requires that all schools conduct annual evaluations of all students in grades three through eight in the subjects of Reading and Math. Results of these standardized tests are disaggregated by subgroups including ethnicity, student disability, and economically-disadvantaged status, and must show progress in order to be in compliance with the law (NCLB, 2001). This improvement measure, known as Adequate Yearly Progress (AYP), measures the growth of academic improvement for each subgroup in a school. Schools that do not show growth in all subgroups in the area of Reading or Math will fail to meet AYP and, thus be subject to federal sanctions. Scott (2001) estimated that addressing behavior problems results in a large amount of lost instructional time for all students and the resulting discipline consequences lead to students being removed from the classroom, thus further limiting instruction. Osher et al. (2010) suggested schools that respond to disruptive behavior with suspensions or expulsions contribute to "student disengagement, lost opportunities to learn, and dropout" (p.48).

Many students who experience school discipline consequences result from the wide-spread use of zero-tolerance policies, which originally targeted level three behaviors such as the use of weapons and alcohol (Verdugo, 2002). According to research conducted by Skiba, Michael, Nardo, and Peterson (2002), non-white students (black and Hispanic), and economically-disadvantaged subgroups are more likely to be negatively affected academically as a result of disproportionate numbers of reported discipline referrals when compared to their white counterparts. Furthermore, Raffaele-Mendez (2003) reported that external discipline measures that remove students from the

classroom “do not appear to work as a deterrent to future misbehavior” (p.31). Wallace, Goodkind, Wallace, and Bachman (2008) suggested that future research and practice methods in school discipline should be investigated in order to understand and eliminate the disproportionality in school discipline.

The current research study indicated that a significant relationship existed between the numbers of discipline referrals reported for serious level three infractions and SWPBIS status. Schools in this study implementing SWPBIS methods showed significantly lower level three discipline referrals than the non-SWPBIS school. When data were disaggregated further, it was revealed that SWPBIS schools also had lower percentages of level three discipline referrals for students who qualified for free and reduced meals. Specifically, School B, which had the highest SET score, reported a total of 8.07% of the total number of economically disadvantaged students who received discipline referrals for level three infractions compared to School C, which reported 19.10% at this level. While the breakdown of data did not reveal differences in percentages between the levels of discipline for non-white and white students when comparing SWPBIS status, the data suggest that implementing SWPBIS may have a positive impact on behaviors of economically disadvantaged students.

These findings have implications for educational leaders. Administrators working to meet the demands of NCLB are mandated to provide a safe learning environment for students. Level three behavior problems, the most serious, are associated with the most severe forms of discipline that result in suspensions and expulsions. With strong evidence that implementing SWPBIS reduces the number of level three discipline referrals, administrators should give serious consideration to implementing the SWPBIS

framework into schools. Luiseli et al. (2005) concluded that successful implementation of this universal intervention also benefited students' academic performance due to an increased amount of time students were in the classroom.

Teacher Perceptions

Although there is research to suggest that SWPBIS is an effective intervention for reducing office discipline referrals and increasing instructional time, many school personnel are resistant to implementing a school-wide intervention that applies to all students, staff, and settings (; Lassen, Steele, & Sailor, 2006; Lohrmann et al., 2008; Scott & Barrett, 2004). Lohrmann et al. (2008)revealed two reasons staff were resistant to SWPBIS strategies. First, they did not believe the intervention would be supported by administration, and, second, they did not believe it would work to improve student behavior and reduce office discipline referrals. Additional research suggested that when there are no uniform systems for handling organizational structures such as school discipline, teachers may be prone to increased levels of burnout (Pas et al., 2010). Results from this study showed a reduction in office discipline referrals at each level of discipline in the schools that implemented SWPBIS and a significant difference in percentage of level three office referrals in the SWPBIS schools when compared to the non-SWPBIS school. Implications of this study for educators suggest that when schools implement SWPBIS with fidelity, as indicated through SET scores, there is a reduction in level three office referrals. This signifies improvement in the most severe of negative student behaviors. In addition, it is important that school leaders understand the importance of supporting teachers. Research conducted by Boardman, Arguelles, Vaughn, Hughes, and Klingner (2005) suggested that administrators need to show

support for new programs by providing adequate training, providing necessary resources, and becoming knowledgeable themselves about new interventions.

School Culture

School culture is a result of how all the staff in a school responds to daily operations (Muhammad, 2009). Sprague et al. (2011) advocated that a positive school climate is a result of adults in the building working together to teach expected behaviors actively and consistently. In contrast, Deliso (2005) suggested that schools with large numbers of discipline referrals or behavior problems can contribute to a negative school environment. This negative culture is not only perceived by teachers or staff members but also by the community at large, as parents believe student behavior is out of control based on local media reporting of school shootings (Simonsen et al., 2008). Research conducted by Irvin et al. (2004) revealed that schools with high numbers of office referrals were also perceived by staff and students to have negative school climates, especially when the office referrals were administered for serious discipline infractions. The focus of SWPBIS is a school-wide system of support that emphasizes proactive approaches to define, teach, and reinforce student behavioral expectations. Data from this study indicated that schools implementing SWPBIS with fidelity, as indicated by SET scores, showed a significant relationship between the percentages of level three office referrals as compared to that of the non-SWPBIS school. The percentages of office referrals at SWPBIS schools for level three behaviors were significantly lower than their counterpart.

Implications for administrators wishing to implement SWPBIS into their school setting suggest that they first need to seek input from staff in order to establish a common

set of expectations and rewards. Alderman (2000) contends that it takes an entire school working together to develop a positive climate, and that teamwork from all adults is required. Administrators should also consistently collect building level data to determine the level of implementation of the school-wide supports. Data should help school level leaders determine the consistency of administrator support, identify problem areas in the building, and help identify solutions to address student behaviors. Another important implication for administrators is to recognize the importance of celebrating success. In order to create teacher buy-in effectively, data should be shared with all staff and any progress celebrated. Kouzes and Posner (2007) posit that recognition reinforces positive performance and creates an environment where people are appreciated. Just as students are rewarded for appropriate behaviors, school faculties that collaboratively and consistently implement the universal expectations of a system approach to behavior management should also be recognized.

Limitations

Several limitations existed in this study. First, the causal-comparative design did not allow for the researcher to control all the extraneous variables present in the study. One important extraneous variable was the teachers' level of training and experience in classroom management in each school. Teachers have different levels of tolerance for behaviors in the classroom, and this can have an effect on the number of office referrals generated by one teacher. This study did not take into consideration the experience level of teachers or administrators in handling school discipline, nor did it examine the number or level of referrals generated by each teacher. Similarly, individual student data were

not disaggregated to reveal students with severe emotional or behavior problems to reveal whether a small number of the same students were generating large numbers of referrals.

Another important limitation to this study was an absence of baseline data on school SET scores. Although a SET score was determined for each school, the score only suggests the current implementation level, and it was not possible to identify the SET scores for the 2009 and 2010 school years.

Generalization to other populations is a limitation in this study. Because the study was limited to three middle schools in one school system, the results are limited to this system and grade levels. Additionally, the three schools in the study are part of a small school system with limited diversity; therefore, the results may not be generalized to a large school system or one with more diversity.

Finally, instrumentation validity is a limitation. Though each school did follow the same system level Code of Conduct, the office referral forms were slightly different at each school. To address this limitation, data were collected through the system level student information system; however, each school report is based on the referral forms at each school, and this limitation cannot be ignored.

Implications for Future Research

There is a need for future research in universal behavior management systems. This study focused on the types of behaviors that were affected by SWPBIS implementation based on numbers of office referrals at schools with and without these systems. Future research may investigate this problem further by increasing the number of schools or the sample size for greater generalization or by conducting experimental

research to control for extraneous variables such as teacher training. In doing so, a stronger cause and effect relationship may be determined.

Future studies should also disaggregate individual student data to investigate the effects of SWPBIS on students who had limited student discipline referrals compared to those with more frequent or chronic referrals. Researchers should examine the data disaggregated by ethnicity, gender, socioeconomic status and students with disabilities, and these subgroup studies should also examine whether discipline incidents for these subgroups were reduced from one year to the next as well as identify the specific intervention strategies that may have been implemented. For example, data analysis could determine on what tier of the behavioral Response to Intervention (RTI) pyramid students are placed. Results from these future studies may help educators design specific interventions for students with disabilities who need individual help coping with behavior management or social skills.

Summary

The purpose of this study was to determine whether there was a significant difference in types of student behavior problems in SWPBIS and non-SWPBIS schools. School discipline data and SET survey data were analyzed for two SWPBIS schools and one non-SWPBIS schools for any evidence that SWPBIS implementation caused a change in the incidences of student discipline referrals. This study revealed that the percentages of students referred among the discipline levels and SWPBIS participation were, in fact, related.

Results from analysis of student discipline data indicated that the two SWPBIS schools had significantly lower percentages of level three discipline referrals than the

non-SWPBIS school. Results also revealed that for some years there was a significant difference in the distribution of discipline referrals each year within the SWPBIS schools. For schools A and B, the SWPBIS schools, significant differences were found between two sets of paired years, indicating that for those years there was a significant decrease in the distribution of office referrals at each level of discipline. School C data, (non-SWPBIS), showed only one set of paired years that indicated a significant difference.

The SET survey was used to help measure the presence or absence of SWPBIS implementation. Schools A and B met the requirements for SWPBIS (a SET score of 80% or greater) and School C did not. Descriptive statistics were used to further support findings that the SWPBIS schools reported fewer level three discipline referrals than the non-SWPBIS school.

This study is important for administrators who are seeking additional strategies to provide safe school environments and meet the requirements of state and federal mandates. Data analysis for the participating schools in this study provided evidence to support SWPBIS as a viable intervention in reducing the number of discipline infractions. If future replication supports the conclusions from this study, educators would then have an effective solution to providing a safe and orderly learning environment that is essential in students' learning.

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School-wide Evaluation Tool (SET)

Interview and Observation Form

	Staff questions (Interview a minimum of 10 staff members)						Team member questions			Student questions	
	What are the school rules? Record the # of rules known.	*Have you taught the school rules/ behave. exp. to students this year?*	*Have you given out any ____ since ____? (2 mos.)*	*What types of student problems do you or would you refer to the office?*	*What is the procedure for dealing with a stranger with a gun?*	*Is there a team in your school to address school-wide behavior support systems?*	*Are you on the team? If yes, ask team questions*	*Does your team use discipline data to make decisions?*	*Has your team taught/ reviewed SW program w/staff this year?*	*Who is the team leader/ facilitator?*	*What are the (school rules)?* Record the # of rules known	*Have you received a ____ since ____?*
1		Y N	Y N			Y N	Y N	Y N	Y N		1	Y N
2		Y N	Y N			Y N	Y N	Y N	Y N		2	Y N
3		Y N	Y N			Y N	Y N	Y N	Y N		3	Y N
4		Y N	Y N			Y N	Y N	Y N	Y N		4	Y N
5		Y N	Y N			Y N	Y N	Y N	Y N		5	Y N
6		Y N	Y N			Y N	Y N	Y N	Y N		6	Y N
7		Y N	Y N			Y N	Y N	Y N	Y N		7	Y N
8		Y N	Y N			Y N	Y N	Y N	Y N		8	Y N
9		Y N	Y N			Y N	Y N	Y N	Y N		9	Y N
10		Y N	Y N			Y N	Y N	Y N	Y N		10	Y N
11		Y N	Y N			Y N	Y N	Y N	Y N		11	Y N
12		Y N	Y N			Y N	Y N	Y N	Y N		12	Y N
13		Y N	Y N			Y N	Y N	Y N	Y N		13	Y N
14		Y N	Y N			Y N	Y N	Y N	Y N		14	Y N
15		Y N	Y N			Y N	Y N	Y N	Y N		15	Y N
Total											Total	

Location	Front hall/ office	Class 1	Class 2	Class 3	Cafeteria	Library	Other setting (gym, lab)	Hall 1	Hall 2	Hall 3
Are rules & expectations posted?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Is the documented crisis plan readily available?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	X	X	X

School-wide Evaluation Tool version 2.1, June 2005

Educational and Community Supports
University of Oregon

Revised 06-29-05 NKS

Appendix B

Research Approval Letter

October 6, 2011

Dear Mrs. Arnold:

The research proposal is approved since we will not be identifying student or teacher names. We look forward to working with you and I will be interested in seeing your findings when the project is complete.

Sincerely,

John F. Harper, Ed.D.
Superintendent

Dr. Brian Knuchel
Principal
Adairsville Middle School

Mr. Lamar Barnes
Principal
Woodland Middle School

Mrs. Kristy Arnold
Principal
Cass Middle School

65 Gilreath Road P.O. Box 200007 Cartersville, GA 30120-9026 (770) 606-5800 Fax: (770) 606-5855

Appendix C

Permission to Use School-wide Evaluation Tool (SET)

From: Rob Horner [robh@uoregon.edu]
Sent: Wednesday, April 13, 2011 12:55 PM
To: Arnold, Kristy
Subject: RE: PBIS Self Assessment Survey

Yes, you have our permission to use the SET… and I believe we have a permission notice on www.pbis.org website.

Good luck

Rob

From: Arnold, Kristy [mailto:KArnold@bartow.k12.ga.us]
Sent: Wednesday, April 13, 2011 4:58 AM
To: 'robh@uoregon.edu'
Subject: RE: PBIS Self Assessment Survey

Dr. Horner,

Thank you so much for your support. I also would like to ask if it would be permissible to use the School-wide Evaluation Tool (SET) to determine baseline data from the comparison schools. I have found research regarding the validity and reliability of both the Safety and SET tools. Your suggestion was very helpful.

Again, I appreciate your time and consideration.

Sincerely,

Kristy Arnold

From: Rob Horner [mailto:robh@uoregon.edu]
Sent: Tuesday, April 12, 2011 4:22 PM
To: Arnold, Kristy
Subject: RE: PBIS Self Assessment Survey

Kristy

Please accept this email as formal approval to use the School Safety Survey in your research.Validity and reliability analyses of all our instruments have been done by Jeff Sprague and Larry Irvin. I am on the road and do not have the manuscripts available. See early work by Colvin, Sprague and Irvin (they developed the safety survey)

Rob Horner

From: Arnold, Kristy [mailto:KArnold@bartow.k12.ga.us]
Sent: Tuesday, April 12, 2011 12:22 PM
To: 'robh@uoregon.edu'
Subject: PBIS Self Assessment Survey

Dr. Horner,

My name is Kristy Arnold and I am the principal at Cass Middle School in Cartersville, Georgia. We implemented EBIS several years ago and still use this as our school-wide positive behavior management system. I am currently enrolled in a Doctoral program at Liberty University and would like permission to use the School Safety Survey and the PBIS Self Assessment Survey (SAS) to complete research involving schools that implement school-wide programs compared to schools that do not.

If I am able to gain permission to use these surveys, would it be possible to determine the Chronbach's Alpha for these instruments? I appreciate any response to this inquiry.

Thank you,

Kristy Arnold

Principal

Cass Middle School

Appendix D

Table 4.1

Unduplicated Student Discipline Referrals at School C

	2009		2010		2011		Total	
	n	%	*n*	%	*n*	%	*n*	%
Level 1	155	62.75	140	69.65	95	71.43	390	67.13
Level 2	39	15.79	22	10.95	23	17.29	84	14.46
Level 3	53	21.46	39	19.40	15	11.28	107	18.42
Total	247	100.00	201	100.00	133	100.00	581	100.00

Appendix E

Table 4.2

Total Incident at School C by Year

	2009		2010		2011		Total	
	n	%	*n*	%	*n*	%	*n*	%
Level 1	323	76.72	312	81.68	174	80.93	809	79.47
Level 2	42	9.98	24	6.28	24	11.26	90	8.84
Level 3	56	13.30	46	12.04	17	7.91	119	11.69
Total	421	100.00	382	100.00	215	100.00	1,018	100.00

Appendix F

Table 4.3

Student Referrals by Year and Ethnicity at School C

	2009		2010		2011		Total	
	White	Other	White	Other	White	Other	White	Other
Level 1								
n	136	19	121	19	82	13	339	51
%	62.96	61.29	69.14	73.08	69.49	86.67	66.60	70.83
Level 2								
n	33	6	20	2	22	1	75	9
%	15.28	19.35	11.43	7.69	18.64	6.67	14.73	12.53
Level 3								
n	47	6	34	5	14	1	95	12
%	21.76	19.35	19.43	19.25	11.86	6.67	18.66	16.67
Total								
n	216	31	175	26	118	15	509	72
%	100	100	100	100	100	100	100	100

Appendix G

Table 4.4

Student Referrals by Year and Gender at School C

	2009		2010		2011		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Level 1								
n	109	46	92	48	67	28	268	122
%	60.56	68.66	68.15	72.73	71.28	71.79	65.53	70.93
Level 2								
n	33	6	16	6	17	6	66	18
%	18.33	8.96	11.85	9.09	18.09	15.38	16.14	10.47
Level 3								
n	38	15	27	12	10	5	75	32
%	21.11	22.39	20.00	18.18	10.64	12.82	18.34	18.60
Total								
n	180	67	135	66	94	39	409	172
%	100	100	100	100	100	100	100	100

Appendix H

Table 4.5

Student Referrals by Year and Meal Eligibility at School C

	2009		2010		2011		Total	
	F/R	Other	F/R	Other	F/R	Other	F/R	Other
Level 1								
n	90	65	94	46	66	29	250	140
%	62.07	63.73	68.61	71.88	69.48	76.32	66.31	68.63
Level 2								
n	26	13	13	9	16	7	55	29
%	17.93	12.75	9.49	14.06	16.84	18.42	14.59	14.22
Level 3								
n	29	24	30	9	13	2	72	35
%	20.00	23.53	21.90	14.06	13.68	5.26	19.10	17.16
Total								
n	145	102	137	64	95	38	377	204
%	100	100	100	100	100	100	100	100

Note: F/R = eligible for Free and Reduced lunch program. Other = not eligible.

Appendix I

Table 4.6

Unduplicated Student Discipline Referrals at School A

	2009		2010		2011		Total	
	n	%	*n*	%	*n*	%	*n*	%
Level 1	265	69.55	223	67.37	151	62.40	639	66.98
Level 2	79	20.73	62	18.73	68	28.10	209	21.91
Level 3	37	9.71	46	13.90	23	9.50	106	11.91
Total	381	100.00	331	100.00	242	100.00	954	100.00

Appendix J

Table 4.7

Total Incidents at School A by Year

	2009		2010		2011		Total	
	n	%	*n*	%	*n*	%	*n*	%
Level 1	610	82.77	503	81.13	262	70.62	1,375	79.57
Level 2	86	11.67	69	11.13	85	22.91	240	13.89
Level 3	41	5.56	48	7.74	24	6.47	113	6.54
Total	737	100.00	620	100.00	371	100.00	1,728	100.00

Appendix K

Table 4.8

Student Referrals by Year and Ethnicity at School A

	2009		2010		2011		Total	
	White	Other	White	Other	White	Other	White	Other
Level 1								
n	172	93	133	90	95	56	400	239
%	71.07	66.91	68.56	65.69	62.50	62.22	68.03	63.30
Level 2								
n	49	30	36	26	41	27	126	83
%	20.25	21.58	18.56	18.98	26.97	30.00	21.43	22.68
Level 3								
n	21	16	25	21	16	7	62	44
%	8.68	11.51	12.89	15.33	10.53	7.78	10.54	12.02
Total								
n	242	139	194	137	152	90	588	336
%	100	100	100	100	100	100	100	100

Appendix L

Table 4.9

Student Referrals by Year and Gender at School A

	2009		2010		2011		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Level 1								
n	180	85	155	68	108	43	443	196
%	70.04	68.55	67.39	67.33	63.91	58.90	67.53	65.77
Level 2								
n	52	27	39	23	47	21	138	71
%	20.23	21.77	16.96	22.77	27.81	28.77	21.04	23.83
Level 2								
n	25	12	36	10	14	9	75	31
%	9.73	9.68	15.65	9.90	8.28	12.33	11.43	10.40
Total								
n	257	124	230	101	169	73	656	172
%	100	100	100	100	100	100	100	100

Appendix M

Table 4.10

Student Referrals by Year and Meal Eligibility at School A

	2009		2010		2011		Total	
	F/R	Other	F/R	Other	F/R	Other	F/R	Other
Level 1								
n	180	82	139	84	112	39	434	205
%	71.21	66.13	64.35	73.04	65.12	55.71	67.29	66.34
Level 2								
n	51	28	45	17	45	23	141	68
%	19.84	22.58	20.83	14.78	26.16	32.86	21.86	22.01
Level 3								
n	23	14	32	14	15	8	70	36
%	8.95	11.29	14.81	12.17	8.72	11.43	10.85	11.65
Total								
n	257	124	216	115	172	70	645	309
%	100	100	100	100	100	100	100	100

Notes: (1) F/R = eligible for Free and Reduced lunch program (2) Other = not eligible.

Appendix N

Table 4.11

Unduplicated Student Discipline Referrals at School B

	2009		2010		2011		Total	
	n	%	*n*	%	*n*	%	*n*	%
Level 1	213	80.38	210	67.37	149	77.60	572	81.60
Level 2	35	13.21	20	18.73	29	15.10	84	11.98
Level 3	17	6.42	14	13.90	14	7.29	45	6.42
Total	265	100.00	244	100.00	192	100.00	701	100.00

Appendix O

Table 4.12

Total Incidents at School B by Year

	2009		2010		2011		Total	
	n	%	*n*	%	*n*	%	*n*	%
Level 1	664	91.97	550	94.02	309	87.29	1,523	91.69
Level 2	40	5.54	21	3.59	31	8.76	92	5.54
Level 3	18	2.49	14	2.39	14	3.95	46	2.77
Total	722	100.00	585	100.00	354	100.00	1,661	100.00

Appendix P

Table 4.13

Student Referrals by Year and Ethnicity at School B

	2009		2010		2011		Total	
	White	Other	White	Other	White	Other	White	Other
Level 1								
n	174	39	153	57	113	36	440	132
%	82.46	72.22	84.53	90.48	76.87	80.00	81.63	81.48
Level 2								
n	27	8	19	1	21	8	67	17
%	12.80	14.81	10.50	1.59	14.29	17.78	12.43	10.49
Level 3								
n	10	7	9	5	13	1	32	13
%	4.74	12.96	4.97	15.33	8.84	7.78	5.94	8.02
Total								
n	211	54	181	63	147	45	539	162
%	100	100	100	100	100	100	100	100

Appendix Q

Table 4.14

Student Referrals by Year and Gender at School B

	2009		2010		2011		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Level 1								
n	146	67	146	64	113	36	405	167
%	80.66	79.76	85.38	87.67	80.71	69.23	82.32	79.90
Level 2								
n	23	12	19	1	19	10	61	23
%	12.71	14.29	11.11	1.37	13.57	19.23	12.40	11.00
Level 3								
n	12	5	6	8	8	6	26	19
%	6.63	5.95	3.51	10.96	5.71	11.54	5.28	9.09
Total								
n	181	84	171	73	140	52	492	209
%	100	100	100	100	100	100	100	100

Appendix R

Table 4.15

Student Referrals by Year and Meal Eligibility at School B

	2009		2010		2011		Total	
	F/R	Other	F/R	Other	F/R	Other	F/R	Other
Level 1								
n	123	90	120	90	86	63	329	243
%	80.39	80.36	83.92	89.11	76.11	79.75	80.44	83.22
Level 2								
n	20	15	12	8	15	14	47	37
%	13.07	13.39	8.39	7.92	13.27	17.72	11.49	12.67
Level 3								
n	10	7	11	3	12	2	33	12
%	6.54	6.25	7.69	2.97	10.62	2.53	8.07	4.11
Total								
n	153	112	143	101	113	79	409	292
%	100	100	100	100	100	100	100	100

Notes: (1) F/R = eligible for Free and Reduced lunch program (2) Other = not eligible.

Appendix S

Discipline Referral Form

Name: _____ Date: _____ Time: _____

Grade: 6 7 8

Referring Staff: _____

Team: _____

LOCATION

___Bathroom ___Bus ___Cafeteria
___Classroom ___Gym ___Hallway
___Library ___Arrival/ Dismissal
___Special Event ____ Other: _____

Level 2 Behavior	**Level 3 Behavior**	**Possible Motivation**
o Chronic Level 1 behavior o Defiance/disrespect of authority o Chronic dress code infractions o Inappropriate computer use o Inappropriate display of affection o Profanity/racial or ethnic slurs o Skipping class o Stealing o Being in an unauthorized area o Physical aggression towards students	o Chronic/extreme Level 2 Behavior o Fighting/striking back Bullying/harassment of other students o Verbal/written implied threats of violence o Physical aggression toward authority o Assault of teachers/other authority o Vandalism o Theft from authority/school o Possession of : (circle) Inappropriate items / Tobacco / Alcohol / Drugs of any kind: _____ (specify) o Unauthorized exit from class/ school property o Destruction of property o Computer trespass o Sexual misconduct/harassment	o Obtain peer attention o Obtain adult attention o Obtain item/activities o Avoid peer(s) o Avoid adult o Avoid task or activity o Don't know o Other_____ _____
Others Involved o None o Peer(s) o Staff o Teacher o Substitute o Other o Unknown		**Office Use Only Consequence** o Loss of privilege o Parent contact o Conference / Warning o In-School Suspension o Out-of-School Suspension o Reimbursement o Other _____

Names of all witnesses:
_____
_____
_____

Other comments: _____
_____
_____
_____

Administrator's signature:
Comments:

Appendix T

_____SCHOOL

DISCIPLINE REFERRAL

STUDE T' NAME _____TEACHER_____
DATE _____GRADE_____ PERIOD_____ TIME_____

REASON (S) FOR REFERRAL:

[ ] Rude, Discourteous
[ ] Inappropriate Language
[ ] Hitting/Aggressive Behavior
[ ] Class Disruption
[ ] Refused to cooperate/Participate in Class
[ ] Misconduct in Cafeteria/Hall
[ ] Insubordination/Willful Refusal
[ ] Po e ion of Electronic Device
[ ] Computer Trespass
[ ] Tobacco Possession
[ ] Bullying
[ ] Substance Abuse
[ ] Weapons/Explosives
[ ] Dress Code Violation
[ ] Excessive Tardies (#)
[ ] Skipping Class/School
[ ] Threats/Intimidation
[ ] Fighting
[ ] Stealing
[ ] Cheating
[ ] Harassment
[ ] In Unauthorized Area
[ ] Vandalism
[ ] Other

Comment: _____

ACTIO TAKEN BY ADMINISTRATION

[ ] Parent Conference (PLEASE CHECK ONE)
__ Yes, I will attend. Date: _____Time: _____ No, I am unable to attend.

[ ] In-School Suspension. Day(s): _____Date(s): _____
[ ] Out-of- School Suspension Day(s): _____Date(s): _____
[ ] Campus Police Notified
[ ] OSS until Parent Conference
[ ] Student Conference/Warning

[ ] Referral For Tribunal
[ ] Removed From Class
[ ] Reimbursement for Damage
Comments: _____

Student Signature: _____Date:_____
Administrator' Signature: _____Date:_____
Parent/Guardian Signature: _____ Date: _____