POSITIVE BEHAVIOR INTERVENTIONS AND SUPPORTS AND HOW HAS IMPLEMENTATION AFFECTED DISCIPLINE REFERRALS WITHIN AN ELEMENTARY BUILDING, PLAYGROUND, SCHOOL BUSES, AND GENDER

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by

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And hereby certify that in their opinion it is worthy of acceptance.

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Dedication

To my parents, thank you for loving, supporting, and encouraging me to reach for the stars. You have taught me hard work, dedication, and passion. Without you guiding me, none of this would have been possible. I love you more than the words on this page can ever say. God truly blessed me with the most amazing parents in the world.

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Positive Behavior Interventions and Supports and how has Implementation Affected Discipline Referrals within an Elementary Building, Playground, School Buses, and Gender

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Abstract

The purpose of this study was to determine how Positive Behavior Interventions and Supports (PBIS) affects the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females. This study determined whether or not PBIS had enough positive results from school’s students and staff to warrant spending professional development stipends for training.

The study was designed as a correlational study to determine the relationship between the independent variables of office discipline referrals in an elementary building, office discipline referrals on the playground of an elementary building, office discipline referrals on the buses serving an elementary building, office discipline referrals of males in an elementary building, and office discipline referrals of females in an elementary building and how the implementation of Positive Behavior Interventions and Supports (PBIS) affected office discipline referrals. The dependent variable is the number of student discipline referrals, therefore it was used to determine effectiveness in this study. Data were available on one elementary school in southeast Missouri, so sampling was not necessary. To analyze the data, Chi Square was conducted using SPSS software and Microsoft Excel. A 95% confidence interval was used to determine statistical significance.
The null hypothesis for research questions one, three, four, and five were rejected because a significant relationship existed. For research question two, the null hypothesis was confirmed because there was no significance of PBIS implementation and office discipline referrals on the playground of an elementary building. For research questions one, three, four, and five an additional follow-up test was conducted and indicated that homogeneous subsets were necessary.

The debate of whether or not the implementation of PBIS decreases office discipline referrals was confirmed. The data proved that the professional development stipends spent in this one elementary building towards PBIS is necessary and should continue due to the proven positive effects.
CHAPTER ONE

INTRODUCTION TO THE STUDY

Background

What is the most challenging job in the world? There are hundreds to pick from – a firefighter, police officer, soldier, doctor, or lawyer. What factors make this field such a large undertaking? Long hours, low salary, physical working conditions, or maybe even little to no recognition for hard work contributed to difficult occupations. While many occupational fields are a challenge, the researcher understands it to be true that teaching children to learn is the most challenging occupation a person may face.

Throughout the researcher’s nine years in the educational field, both as a teacher and principal, many people commented on what difficult tasks educators endure. Educating young minds has become a greater challenge over the past decade due to situations such as split homes, increased poverty, lack of parental support, and children losing the desire to learn. However, most educators have a love and passion for children. It is because of this belief that most educators and school districts across the country are continuously researching ways to keep students in the classroom safe, actively engaged in high-quality lessons, and finding any way possible to create a more effective learning environment.

Additionally, public schools have shown an increase in problem behaviors concerning parents, families, and communities (Lewis, Sugai, & Colvin, 1998). Current discipline policies within schools have also proven to intensify patterns of students’ negative behaviors (Lewis, Sugai, & Colvin, 1998). Dealing with problem behaviors Martinez (2009) claims an early intervention is best. Also a systematic school-wide approach where a school uses preventive strategies created a positive school culture (Martinez, 2009). To increase the chances of student
successes the researcher’s school district, many others in the state of Missouri, and school
districts across the United States have implemented a support system call Positive Behavior
Intervention and Supports (PBIS).

Though many educators would suggest Positive Behavioral Interventions and Supports
(PBIS) is a new trend being implemented into the educational system, research proves
differently. Positive Behavioral Interventions and Supports has grown since its inception in the
early 1990s and is now implemented in over 10,000 schools in 40 states (Positive Behavior
Interventions and Supports, 2013). PBIS is supported by the U.S. Department of Education and
eleven other centers across the country. For example, the state of Missouri’s initiative began in
1999 at the University of Missouri with grants approved by the Missouri Department of
Elementary and Secondary Education (DESE). Within the state of Missouri, currently Missouri
Southwest – Positive Behavior Supports (SW-PBS), almost 600 schools are involved (PBIS,
2013). The purpose of PBIS is to create safer and more effective schools. This is done through
long-term implementation of efficient and effective discipline. “Their methods are research-
based, proven to significantly reduce the occurrence of problem behaviors in schools and
supported by a three-tiered model” (DESE, http://dese.mo.gov/divcareered/documents/guid-

PBIS provides an outline to guide schools in effectively implementing practices. Though
thousands of schools are implementing these practices, no two schools are identical. Therefore,
when implementing PBIS in a school, fidelity is vital.

**Statement of the Problem**

PBIS has been implemented in over 10,000 schools across the United States. Each of
these schools have used different implementation strategies and various levels of fidelity.
Schools implementing PBIS have found it necessary to change their mindset concerning discipline to a more proactive approach toward social behavior (Gartin & Murdick, 2001). Research shows using proactive approaches has decreased problem behaviors after the implementation of PBIS (Gartin & Murdick, 2001; Safron & Oswald, 2003).

Therefore, more research is needed on the sustainability of the implementation of PBIS with fidelity (Cohen, Kincaid, & Childs, 2007; Horner, Sugai, & Anderson, 2010). There is also little research on showing how classroom teachers contribute to the implementation of PBIS and whether or not they are a factor in the decrease of office discipline referrals.

**Purpose of the Study**

The purpose of this study was to determine how PBIS affects the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females. This study determined whether or not PBIS had enough positive results from school’s students and staff to warrant spending professional development stipends for training.

To ensure anonymity, fictitious names were used for the school district and all schools within the study. Success School District had six elementary buildings and all have implemented the use of PBIS. However, each elementary building was in a different year of training or in the implementation process. This study was proposed as a possible source for the district to use for future planning, including professional development offered to teachers. This study could also help other schools who are considering PBIS or who are currently using PBIS as guideline for implementation.
This study was conducted in one elementary building within Success School District. The results of this study provided information to the district regarding whether or not PBIS was truly decreasing the number of student referrals because of its implementation. Due to the fact that one elementary building was studied, data collection began the first year of PBIS implementation and tracked through the next four years of PBIS implementation. The format of this study was quantitative and the number of discipline referrals were collected.

**Research Questions**

The research questions guiding this study were:

1. How does the implementation of PBIS affect the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students?

   The null hypothesis for RQ1 was the implementation of PBIS had no effect on the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students.

2. How does the implementation of PBIS affect the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students?

   The null hypothesis for RQ2 was the implementation of PBIS had no effect on the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students.

3. How does the implementation of PBIS affect the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students?
The null hypothesis for RQ3 was the implementation of PBIS had no effect on the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students.

4. How does the implementation of PBIS affect the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ4 was the implementation of PBIS had no effect on the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students.

5. How does the implementation of PBIS affect the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ5 is the implementation of PBIS has no effect on the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students.

**Conceptual Underpinnings for the Study**

Over the past decade public schools have been pushed to implement evidence-based strategies to assist in accountability measures (PBIS, 2013). This study focused on the impact of PBIS, an evidence-based practice, within the Success School District at Achieve Elementary. PBIS has a blueprint or guideline to help sustain implementation fidelity (McIntosh, MacKay, Hume, Doolittle, Vincent, Horner, & Ervin, 2010).

“PBIS is a framework or approach comprised of intervention practices and organizational systems for establishing the social culture, learning and teaching environment,
and individual behavior supports needed to achieve academic and social success for all students” (National Technical Assistance Center on Positive Behavioral Interventions and Supports, 2010, p. 13). The implementation of PBIS has four necessary elements. They include outcomes, practices, data, and systems. When implementing these elements, continuous monitoring should be used so that informed decision making and improvement can be made (National Technical Assistance Center on Positive Behavioral Interventions and Supports, 2010, p. 28).

Positive Behavioral Interventions and Supports (PBIS) is the result of collaboration between the U.S. Department of Education and 11 technical assistance units across the United States. The PBIS Center is directed by Drs. George Sugai (University of Connecticut) Rob Horner, (University of Oregon) and Tim Lewis (University of Missouri). They have a ten-year history of defining, implementing, and evaluating PBIS across the country.

The foundational components of PBIS (2013) are:

- Documented need for improving the social behavior of students, demonstrated success of PBIS to improve both student social behavior and academic performance, demonstrated effectiveness of PBIS as a practical technology that can be implemented at socially important scales by actual implementers, the value of school-wide behavior support systems on the education of children with disabilities, and a current need to extend PBIS practices to a broader range of students, schools, and contexts (Positive Behavior Interventions and Supports, 2013, p. 1).

PBIS encourages and provides training on large-scale implementation of PBIS, organizational models, demonstrations, dissemination, and evaluation tools to implement greater depth and proven fidelity, and extends the lessons learned from PBIS training to educational reform. Schools are encouraged to implement PBIS components with fidelity while also
monitoring their implementation. There are many tools schools can utilize to monitor their progress (PBIS, 2013).

Several evaluation tools of PBIS include the Self-Assessment Survey (SAS), School-wide Evaluation Tool (SET), Team Implementation Checklist (TIC), and School-wide Information System (SWIS). The SAS is a survey taken by the staff to assess the school’s reality prior to PBIS implementation. The purpose of this assessment is to guide the PBIS team in decision making (Safran, 2006). The SET is taken before implementation begins, 6-12 weeks after implementation, and then annually from that point. Its purpose is to assess and evaluate the features of PBIS throughout each academic year. The results provided information on what features are in place, help determine future goals, evaluate on-going efforts, revise procedures currently in place, and compare data from year to year. The TIC is completed monthly by the PBIS team. It is a 22-item checklist with options of “Achieved,” “In Progress,” and “Not Started.” Again, this tool guides the team in creating and revising an action plan for PBIS implementation. Finally, SWIS is used to collect student referral information. Data is entered into this web-based program regarding incident/behavior, student (with identity protected), time, location, and motivation of behavior. Monthly reports can be created to determine problem behaviors so that intervention and support can be put in place.

**Design and Methods**

Within this study the researcher completed a longitudinal study of the implementation of PBIS in a third through fifth grade elementary school for five years. This study was quantitative and the design of the study was action research due to the cycle of changes within the implementation of PBIS. The main data sources used was the number of ODRs in one elementary building with students third through fifth grade. The dependent variables were the
office discipline referrals in the building, playground, bus, and also males and females. The independent variable was the implementation of PBIS. The elementary building chosen had similar populations throughout the past five years and was using PBIS. A linear model is generally based upon a straight line and summarizes data in terms of a straight line; therefore Chi-square test was the best fit for this longitudinal study of office discipline referrals (Field, 2009). To have a comparison over time within several categories a chi-square test was run to see if there was a relationship between the variables or the idea of the frequencies of places ODRs occur (Field, 2009).

**Assumptions**

The researcher was familiar with PBIS implementation and training because the researcher has past professional experience and was a part of another elementary building’s implementation process. Throughout the study the researcher was a participant observer (Yin, 2009). The data collected by the researcher was from the school district she is employed. The observer worked throughout the study to stay objective and heavily rely on data. Therefore, the researcher was approaching this study - with a postpositivist approach (Hatch, 2002). Data provided the findings, not the researcher’s impressions. The researcher’s thoughts and beliefs should derive from the information gathered. Their ideas led to new ideas and understandings which revised the initial feelings of a conceptual framework (Ravitch & Riggan, 2012).

**Limitations**

The study had limitations but actions were taken to address each limitation. The researcher acknowledged this study may be limited because one rural southeast Missouri school district was included in the study. One elementary building was included in the study. The school district considered demographics when collecting and analyzing data from their rural
school. Concentrating on one school district allowed them to be the focus on their specific implementation and results.

Within this study there was not a comparison of pre-data and post-data. The researcher studied five years of implementation because the data was more accurate with one principal implementing the discipline referrals. Therefore, a five year longitudinal study was completed.

**Definition of Key Terms**

The following terms were used throughout the study. These terms are used frequently in PBIS and the Success School District.

*Building.* This is a description of locations where an office discipline referral (ODR) may take place by a third through fifth grade student. Building may include classroom, gym, cafeteria, bathroom, hallway, library, art room, music room, or any other interior location. This definition was for the terms of this study, specific to the elementary building within the study.

*Bus.* This is a description of transportation provided to students living with the school district’s attendance area. Students may ride the bus to school each morning and home from school each afternoon. Most routes were approximately 30 minutes for students. There were generally 60 students (from age 5 to 18) riding a bus with one bus driver on each bus.

*Fidelity.* This term measures the accuracy and strict observance of duties of implementation of PBIS (PBIS, 2013).

*Implementation.* Implementation refers to the guidelines of the procedures and processes of the PBIS framework stressing the systems at initial application for accuracy, durability, and scalability (National Technical Assistance Center on Positive Behavior Interventions and Supports, 2010).
Major Behaviors. This term refers to office-managed behaviors. A staff member completes an office discipline referral and sends the student to the principal. Examples of major behaviors include physical aggression, lying, cheating, stealing, forgery, out of bounds, fighting, threat, bullying, weapons, continuous disrespect, permanent property damage, inappropriate language, dress code violation, and technology violation. These major behaviors were listed on a school’s flowchart which showed a plan of action for specific student behaviors. The major behaviors qualified as an office discipline referral to a principal (PBIS, 2013).

Minor Behaviors. Minor behaviors have been determined by the staff of Achieve Elementary and are handled by teachers. Examples of minor behaviors include excessive talking, out of seat, minor classroom disruption, not following directions, and brief refusal to do class work (PBIS, 2013).

Office Discipline Referrals (ODRs). An ODR is a form a staff member completes when reporting a major behavior of a student. The form is sent with the student to the principal, the principal then determines appropriate consequence, and the behavior is recorded in SWIS (PBIS, 2013).

PBIS Team. PBIS team is made of members at each PBIS building. It is similar to a leadership team, but this team specializes in PBIS because they have received extensive training by their PBIS coordinator. This team is responsible for disseminating information received from training. They are also a support team when a staff member experiences any challenging student behavior (PBIS, 2013).

Positive Student Behavior. This term is used in all Success School District elementary buildings. It refers to students that demonstrate school-wide expectations in an appropriate
manner. Behaviors displayed from the school-wide matrix warrant an incentive or recognition (PBIS, 2013).

_School-wide Evaluation Tool (SET)._ This is a 28-item tool given to staff to determine the implementation of PBIS in a building. The school’s PBIS team uses the data to guide and make effective decisions (Horner, Todd, Lewis-Palmer, Irvin, Sugai, & Boland, 2004).

_School-wide Positive Behavior Supports (SW-PBS)._ This is a three-tiered program used to define, teach, and support positive student behavior. “PBIS is a framework or approach comprised of intervention practices and organizational systems for establishing the social culture, learning and teaching environment, and individual behavior supports needed to achieve academic and social success for all students” (National Technical Assistance Center on Positive Behavioral Interventions and Supports, 2010, p. 13).

_Self-Assessment Survey (SAS)._ This is a 46-item action planning tool. It is given before PBIS implementation and then annually given to the staff following implementation. The purpose of this survey is to guide decision making of the PBIS team (Safran, 2006).

_Team Implementation Checklist (TIC)._ This refers to a monthly evaluation tool completed by the PBIS team that helps guide PBIS implementation. It is a 22-item checklist and rates progress of the implementation and is then sent to the PBIS coordinator (Safran, 2006).

**Significance of the Study**

This study assisted school districts or centers debating on implementation of a school-wide behavior approach, especially a proactive, positive approach such as PBIS. The results of this study provided Success School District with enough data to continue using PBIS, changing their implementation approach, or discontinuing the program. The data proved that there was a decrease in student office discipline referrals at Achieve Elementary. This study was shared with
Lead Elementary – Positive Behavior Supports and Missouri Department of Elementary and Secondary Education as well as the district where the one elementary school is being studied. The district was given research that supports PBIS has contributed to decreasing the number of office discipline referrals.

**Summary**

PBIS is a process that was designed to create safer and more effective schools. The process is a three-tiered researched-based and, though the implementation is long-term, school districts have seen results. By combining academic and behavior supports together, schools should see a decrease in negative behaviors and an increase in instructional time. School districts across the country have responded by implementing PBIS, a more proactive approach when dealing with negative student behaviors (Lewis et al., 1998). The process of PBIS asks schools to use outcomes, practices, data, and systems to guide the implementation process, which in turn supports all staff and students (Cohen et al., 2007).

In Chapter Two the researcher included a detailed literature review containing the history of educational practices in the United States beginning in the 1800s until the present day. Also, No Child Left Behind, Safe School Federal Mandates, character education was presented to show why PBIS has been implemented within so many schools across the country. PBIS is reviewed in great depth including the implementation tool used to provide a school district with information on strengths and weaknesses of their program. There were also several areas the researcher studied, such as playground, school bus, and gender to see the impacts research provided for a greater need to implement PBIS within the school setting.
CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

Introduction

Over the past century education has continued to transform to improve accountability, school climate, and discipline systems. Over the several decades schools have looked for a new approach to discipline (Frey, Lingo, & Nelson, 2008). Positive Behavior Interventions and Supports (PBIS) has been viewed as a preventative, positive, proactive approach of effective behavior practices for all students. All school staff members must commit and implement PBIS with fidelity by practicing the evidence-based behavior school-wide interventions (Lewis et al., 1998; Safran & Oswald, 2003; Sugai & Horner, 2006).

Purpose of the Study

The purpose of this study was to determine how PBIS affects the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females. This study determined if PBIS had enough positive results from school’s students and staff to warrant spending professional development stipends for training.

Success School District had six elementary buildings and all have implemented the use of PBIS. However, each elementary building was in a different year of training or in the implementation process. This study was proposed as a possible source for the district to use for future planning, including professional development offered to teachers. This study could also help other schools who are considering PBIS or who are currently using PBIS as guideline for implementation.
This study was conducted in one elementary building within Success School District. The results of this study provided critical information to the district on whether PBIS is truly decreasing the number of student referrals because of its implementation. Due to the fact that one elementary building was being studied, data collection began the first year of PBIS implementation and tracked through the next four years of PBIS implementation. The format of this study was quantitative and the number of discipline referrals were collected.

**Research Questions**

The research questions guiding this study were:

1. How does the implementation of PBIS affect the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students?

   The null hypothesis for RQ1 was the implementation of PBIS had no effect on the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students.

2. How does the implementation of PBIS affect the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students?

   The null hypothesis for RQ2 was the implementation of PBIS had no effect on the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students.

3. How does the implementation of PBIS affect the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students?
The null hypothesis for RQ3 was the implementation of PBIS had no effect on the number of student office discipline referrals on the buses serving an elementary schools of third, fourth, and fifth grade students.

4. How does the implementation of PBIS affect the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ4 was the implementation of PBIS had no effect on the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students.

5. How does the implementation of PBIS affect the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ5 was the implementation of PBIS had no effect on the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students.

Within this literature review four themes were discussed, (a) history of educational school practices, (b) influence of legislation on education within the United States, (c) an overview of PBIS and its implementation tools, (d) discipline within an elementary building, playground, school bus, and discipline effects on gender. Each of these themes supported the understanding of PBIS. The first theme reviewed literature of school practices throughout history. Secondly, the researcher examined how federal legislation impacted school accountability and the pressure for a decrease in negative behaviors. The third theme defined and
explained PBIS. Lastly, the fourth theme examined research background on locations of office discipline referrals.

**History of Educational School Practices**

The United States public education system has changed drastically throughout time. Most major changes or shifts have been in response to education philosophy movements. This section reviewed changes throughout the years in educational practices. There were five school practices reviewed, monitorial reform, New England pedagogy, post-Civil War, Progressive Era, and the current United States public education system.

In the early 1800s, Joseph Lancaster, the main proprietor of monitorial reform was primarily used with students who came from low economics (Butchart & McEwan, 1998). This practice allowed large numbers of students to attend school with only one classroom teacher. Most often, thirty students were grouped together and monitored by a teacher or more advanced student. This person was responsible for monitoring the progress of the group of other students (Burchart & McEwan, 1998; Newman, 1998; Wrosch, 2012). Students were rewarded with prizes or promotion of status.

Regarding student behavior, monitorial reform practiced public humiliation to encourage students to behavior properly. Consequences for excessive talking required that students stand while sucking their fingers with a label posted on them reading “Noisy” or “Suck finger Baby” (Lancaster, 1810, p. 74). If a severe punishment was needed, a student had to wear a “fool’s coat” with three branches hanging from the coat representing “Bashaw of three tails” (Lancaster, 1810, p. 75). No corporal punishment was necessary, because it was believed that public embarrassment and shame kept students in order. This form of discipline began to be questioned near the 1830s (Wrosch, 2012).
New England pedagogy had evolved in the 1820s and defined a teacher as affectionate (Butchart & McEwan, 1998; Hogan, 1990). The main philosophy of New England pedagogy was that the mind was a warehouse or a place to store knowledge. New information continued to be taught, but also understood and cultivated much like a “garden” (Hogan, 1990, p. 3). Hall (1829) published *Lectures on Schoolkeeping* and stressed the importance of teacher training. Not only was the teacher expected to be affectionate but also promote self-reflection within students.

New England practice encouraged teachers and students to have a strong relationship and also believed in the tolerance of individual differences (Hogan, 1990). The teacher held the responsibility of making school a pleasurable place for learning to occur (Butchart & McEwan, 1998; Hogan, 1990; Wrosch, 2012). New England pedagogy practice encouraged affection to decrease behavior problems from students. It was suggested that teachers not use corporal punishment as a form of discipline.

By the end of the Civil War, a new practice was integrated into the United States educational setting. Past slaves were now allowed to earn an education because of Samuel Chapman Armstrong, who assisted newly freed slaves. Hampton Institute was opened and focused on industrial education (Abbott, 1921; Butchart & McEwan, 1998; Wrosch, 2012). This practice had students work in the morning and study in the afternoon. Students were not paid, but their work covered the cost of the education (Abbott, 1921). Education and discipline shifted greatly because, “Boarding schools expanded surveillance into the private lives of students, extending the disciplinary power to nearly twenty-four hours a day” (Butchart & McEwan, 1998, p. 30).

Next, the Progressive Era was born which centered a focus on psychology and scientific study (Butchart & McEwan, 1998). The practice included self-direction, learning by doing, and
movement in activities. Discipline was embedded into activity-centered instruction. Students’ interests were considered important and it was believed that less discipline issues would occur because students were involved in their own learning (Butchart & McEwan, 1998; Dewey, 1944; Wrosch, 2012). The Progressive Era also encouraged teachers to keep students engaged and provide more meaningful learning (Dewey, 1944; Wrosch, 2012).

Educational practices are slow to change. As research shows the same practice may be used for a century or at least several decades. Cameron (2006) saw a need for change within schools because most utilized similar disciplinary practices that had been used for centuries. Schools across the country had eventually begun looking beyond the final student behavior and used data to implement preventive intervention practices (Horner, Sugai, & Anderson, 2010).

All of the above practices have impacted the United States public education system. These practices have been used in combination with other discipline practices throughout the last few centuries. The monitorial model created structure for public education (Butchart & McEwan, 1998). New England’s practice added a loving culture and affection within today’s public school system (Butchart & McEwan, 1998; Hogan, 1990). Hampton Institute influenced today’s public schools by allowing inclusion for all students through federal mandated legislation (Wrosch, 2012). Additionally, the Progressive Era puts a focus on the use of data where teachers and administrators keep track of problem behaviors by recording individual discipline referrals (Tidwell, Flannery, & Lewis-Palmer, 2003; Wrosch, 2012).

Over the past two centuries public schools have transformed drastically. Schools began to recognize the importance of changing a school culture. Cameron (2006) credits making a school safe and orderly can assist in successful academic students. The change in philosophy is evident, but all practices can still be seen with the United States pubic school setting today.
Perhaps one of the largest legislative impacts on increasing academic performance was the 2002 act No Child Left Behind.

Influence of Legislation on Education within the United States

No Child Left Behind

As early as 1964, President Lyndon Johnson began proposing education aid for the underprivileged (Thomas & Brady, 2005). The largest force for this push was to close the achievement gap between students of different backgrounds (Standerfer, 2008). April 11, 1965 the Elementary and Secondary Act was signed, which was the first major federal legislation to allocate funds for schools in need (Thomas & Brady, 2005). ESEA granted close to $1 billion to schools across the United States. Most money was allocated to school district with low-income families (Title I). Other funds given included library resources (Title II), supplementary education centers (Title III), and other related educational organizations (Title IV and Title V) (Osborne, 1965; Wrosch, 2012).

For many years ESEA was under scrutiny by organizations because reports were made that funds were not focusing on the educationally disadvantaged. Therefore, by 1980 President Ronald Reagan took a more hands-on approach especially because students across the United States were not able to compete in a global society. However, it was not until George W. Bush’s administration that ESEA was reauthorized and became law in 2002 and known as No Child Left Behind (NCLB).

No Child Left Behind (NCLB) expanded the role of the federal government in elementary and secondary education by setting specific implications for states. Federal funding was now tied to student performance (Shaul & Ganson, 2005; Thomas & Brady, 2005; Wrosch,
The purpose of NCLB was to ensure all students met grade level proficiency standards by 2013-2014 (Shaul & Ganson, 2005; Thomas & Brady, 2005; Wrosch, 2012).

NCLB required school districts increase their accountability through assessment, hiring and keeping highly qualified teachers, and the use of scientifically based practices. The primary focus of NCLB was to narrow the achievement gap and continue to increase academic performance with more accountability (Shual & Ganson, 2005; Thomas & Brady, 2005; Wrosch, 2012).

Safe School Federal Mandates

School safety has been a huge concern among schools across the country over the past two decades. The federal government influenced states to make changes by tying federal funds to legislation (Sughrue, 2003; Yell & Rozalski, 2000; Wrosch, 2012). Thus the federal legislations of IDEA of 1997 and IDEA 2004 called for school safety and recommended the use of Positive Behavior Intervention and Supports within Individualized Educational Plans (IEPs). With NCLB and school safety focusing on evidence-based practices IDEA recommended Positive Behavioral Interventions and Supports (PBIS) as a school-wide proactive and preventive intervention (PBIS, 2011).

Public Perception of School Discipline

The public voices many concerns regarding schools. Among them are achievement levels, but also school discipline. Media reports across the globe echo this sentiment, showing violence in classrooms and playgrounds, disruptive students, and bullying (Fields, 2000). Even as far back as 1998, a Gallup Poll showed public concerns for discipline in schools. Along similar lines, 58% of teachers reported that student misbehaviors regularly interrupted their lessons (Fields, 2000). These public outcries have prompted State Departments of Education to
move quickly and make plans for improving behaviors and students supports within the school setting (Fields, 2000).

Teachers greatest areas of concern or complaint are students “talking out of turn, not listening, poor concentration, hindering others, lack of manners, rudeness, clowning, and restlessness” (Fields, 2000). Most of the above problem behaviors are not considered violent or bullying behaviors. Even 80 % of teachers reported that the discipline problems they deal with inside and outside the classroom, would not be considered very serious (Fields, 2000). While teachers would consider these behaviors minor, the media applies one instance to all public schools making discipline and problem behaviors seem more violent. Therefore, it is important that problem behaviors in the school setting are seen as challenges, which can be successfully managed with implementing appropriate researched based strategies (Fields, 2000).

**Character Education**

Character Education Movement started a quarter of a century ago hoping to improve academic achievement scores in math, science, and language (Ryan, 2013). One requirement through NCLB is to conduct studies showing the impact of educational endeavors, including character education (Skaggs & Bodenhorn, 2006). Whether it was NCLB or Race to the Top funding that caused the movement, the message to schools was the same, raise your test scores and what really matters are test scores. “A fragile flower like character education has little chance to survive in the U.S.’s current educational wars” (Ryan, 2013).

Though many schools nationwide have implemented character education programs, there is little research to support whether or not character education programs are effective. Research is inconclusive, due to the fact that character education goals and student achievement goals lack direct relation (Skaggs & Bodenhorn, 2006). Ryan (2013) found that after researching 6000
elementary school students none of the character education programs made an impact on academic or behavioral outcomes. Character can be defined and understood several different ways. It does not appear that this move in society has improved the character of students across the United States (Ryan, 2013). Ryan (2013) concluded the only way true character education can occur is when it is directed toward virtues and has the support and cooperation of children’s parents.

Skaggs & Bodenhorn (2006) concluded in their study of five districts implementing a character education program, provided evidence that character education was related to the perceptions of improved student and school staff character based behavior. However, the relationship between character education implementation and student achievement was missing (Skaggs & Bodenhorn, 2006). The researchers suggested that a school district or community find and implement a character education program that aligned closely with their goals and purposes to see the largest impact (Skaggs & Bodenhorn, 2006). “Implementing character education to raise student achievement is not realistic; however, implementing it to improve student behavior and the overall climate of the school is quite appropriate” (Skaggs & Bodenborn, 2006, p. 113). Also, it was suggested to have a systematic, consistent means to collect behavioral data to provide the principal and staff with information regarding the progress of a building or districts efforts (Skaggs & Bodenhorn, 2006).

An Overview of PBIS and its Implementation Tools

With so much more involvement from the federal and state governments school districts across the country began looking for research based practices to help close the achievement gap and decrease problem behavior from students. Therefore even though Positive Behavior
Intervention and Supports (PBIS) originally gained rapid momentum collecting research for individuals situated in restrictive settings, it shifted to understanding the function of challenging behavior of individuals in natural settings. IDEA of 1997 was the cause of legislation of individual positive behavior interventions and supports, however by 2004 the focus was to team based PBIS (Lohrman-O’Rourke, Knoster, & Llewellyn, 1990). PBIS made an impact on individual’s achievement scores and a decrease in problem behaviors therefore, the implementation of PBIS in schools and within school systems called for school wide positive behavior support (PBIS) (Horner & Sugai, 2000; Vaughn 2006).

For schools implementing PBIS, it involves a multiyear commitment. During the first year, experienced trainers introduce PBIS team members to all elements of PBIS. First year teams learn how to evaluate school’s data and work with staff to design plans for teaching the school-wide expectations, creating a reward systems for students and/or staff, and a way to improve consistency of staff responses to student problem behavior (Freeman, Eber, Anderson, Irvin, Horner, Bounds, Dunlap, 2006). Schools that successfully implement primary and secondary problem behavior prevention programs often report decreases in the number of students engaging in problem behaviors (Horner et al., 2004; Luiselli, Putnam, & Sunderland, 2002; Freeman et al., 2006). Time that was previously spent responding to students with more minor behavior problems became more available for providing support for students with intensive needs (Freeman et al., 2006; Wrosch, 2012).

When implementing PBIS, schools had to consider several features of PBIS which consist of creating common school-wide expectations for staff and students, teaching these expectations to the children, acknowledging the behavior that meets the expectations, imposing consequences for behavior that does not meet expectations, and collecting data on the
implementation of PBIS while making decisions based on the data collected (McKevitt, Dempsey, Ternus, & Shiver, 2012). When considering these factors, administrators should take the following steps when beginning the implementation of PBIS: establishing a leadership team, gaining buy-in from your staff, training all staff, and continue providing ongoing support (McKevitt et al., 2012; Wrosch, 2012).

PBIS creates opportunities for a school to build a vision and make decisions for a school on a regular basis by focusing on outcomes, practices, systems, and data to guide direction for school-wide, specialized, and individual supports (Horner, Sugai, Todd, & Lewis-Palmer, 2000; Freeman et al., 2006). It is crucial for schools to have a systems approach for sustaining school-wide individualized planning processes because the full adoption of effective practices is likely to be challenging and necessary to make PBIS successful (Sugai & Horner, 2009; Freeman et al., 2006). PBIS encourages schools to provide a continuum of supports in order to address the needs of all students, especially those with the most significant learning and/or behavior challenges by matching the intensity of educational practice and intervention to every child’s unique needs (Freeman et al., 2006).

“PBIS swept into the 21st century in a tsunami-like wave to respond to national initiatives and to remain afloat in a sea of diminishing national resources” (Vaughn, 2006). The United States education system found itself wrapped up in the expansion of national initiatives such as No Child Left Behind, Safe Schools Act and various funding trends that supported larger number of students. This shift moved away from exclusive focus on individualized positive behavior support and led to PBIS (Vaughn, 2006). “ALL really does mean ALL and that students once in self-contained classrooms join their peers in general education through the “contextualization” of PBIS with the School wide Applications Model (SAM)” (Vaughn, 2006).
This new lens or mindset urged schools to look at greater inclusion for special education students within the general education setting with the support of PBIS. Freeman et al. (2006) suggested that a school concerned with inclusion should adopt a school wide approach for planning and implementing inclusive practices intended to benefit all students. Weigle (1997) believed that a strategy that encourages a more integrated and inclusive culture in schools is PBIS (Freeman et al., 2006)

One of the key concepts concerning PBIS implementation is that there is positive reinforcement for engaging in the desired behaviors. This concept or philosophy is difficult for staff to overcome sometimes when they are more traditional punishment-oriented (Maag, 2001; McKevitt et al., 2012). However, once the staff buy-in and begin teaching expectations while using positive reinforcement, problem behaviors decrease (McKevitt et al., 2012). One way to overcome punishment-oriented mindset is reinforce positive behavior and make the time to teach replacement behaviors so students know what and how to follow through with the expected behavior. If this is done, children experience an increase in social, personal, and professional quality of life (Scott, White, Algozzine, & Algozzine, 2009). PBIS also proves principals and teachers regain time otherwise spent managing problem behaviors (Scott & Barrett, 2004; McKevitt et al., 2012; Wrosch, 2012)

**Evaluations for the Implementation of PBIS**

Within the last ten years, PBIS has grown drastically and research has shown that data collection systems provided the need for effectiveness for students, teachers, and schools (Horner et al, 2004; Sugai, Horner, & Todd, 2000; Vaughn, 2006). Many evaluation tools have been designed by PBIS to monitor and analyze the implementation of PBIS within a school district.
Two evaluations examined by the researcher were the School-wide Evaluation Tool (SET) and Self-Assessment Survey) SAS.

SET includes document review, interviews, direct observation and is conducted by an individual trained in SET assessment practices and not associated with the school. The SET has 28 items within seven subscales which are:

1. school wide behavioral expectations are defined
2. expectations are taught
3. rewards are provided for following behavioral expectations
4. a continuum of consequences
5. data on problem behaviors used for decision making
6. administrator actively supports PBIS
7. school district supports PBIS (Horner et al., 2004)

Each item on SET is scored with two points for “in place”, one point for “partially in place”, and zero for “not in place”. Scores are averaged in an overall percentage score. Schools with an 80 percent or higher are considered to have implemented PBIS. Also, 80 percent of expectations taught are considered fully implemented.

1. How and when are students taught the expected behaviors
2. Whether staff behavior lessons are being taught
3. Students are taught positive social behaviors annually
4. 70 percent of 15 or more students can state 67% of school rules
5. During interviews 90% or more of staff asked can list 67% of school rules (Sugai et al., 2001; Freeman et al., 2006).
A second form of evaluation of PBIS is The Self-Assessment Survey (SAS) and is used to review the use of the evaluation tool in school wide planning (Safran, 2006). The SAS is a survey the entire school staff completes before the implementation of PBIS and then taken annually. SAS has four sections totaling 46 questions. The first section is the school wide systems section with 18 questions; nonclassroom setting systems has 9 questions; classroom systems has 11 questions; individual student systems has 8 questions (Safran, 2006). Choices for staff when ranking these systems included: in place, partially in place, or not in place. Next, they evaluate the priority of specific areas or systems by choosing from high, medium, or low (Safran, 2006). The results from the SAS are used by a school district to create an action plan of what direction the school wants to spend focus, time, and resources.

PBIS is to be implemented school wide which includes settings such as within the building (classrooms, hallways, restrooms, the cafeteria, gym, and library), playground, the school bus, and implemented consistently for both males and females. The researcher took the research questions to guide the study. Therefore, the next section of the literature review looks further into the areas PBIS may be implemented in a school.

*Discipline within an Elementary Building, Playground, School Bus, and Discipline Effects on Gender*

**Playground**

A common belief in the education field is that recess benefits children in the area of education and development. Lewis, Colvin, & Sugai (2000) go so far as to say that recess is an essential component to have these two needs met. However, many parents are concerned of safety on the playground, lack of supervision, and students not being prepared because of poor
social skills (Lewis et al., 2000). Active supervision has been identified as one of the most crucial features ensuring children stay safe, especially on the playground. This allows for appropriate play, and educational and developmental goals are more likely to be met (Lewis et al., 2000).

The only flaw in the theory of just adding active supervision is that children still lack effective social skills. Surveys have shown that educators feel all students should have exposure to social skill instruction (Lewis et al., 2000). School-wide social skill training programs have been proven an effective practice to decrease problem behaviors while also preventing other challenging behaviors (Lewis et al., 2000). PBIS strategies have been implemented outside the classroom in settings including playgrounds (Lewis, Colvin, & Sugai, 2000; McKevitt et al., 2012).

One strategy of PBIS that considers both active supervision and teaching social skills to students is the implementation of pre-correction with active supervision following the instruction of social skills (Lewis, 2000). Pre-correction is identified as “antecedent manipulation designed to prevent the occurrence of predictable problem behavior and facilitated the occurrence of more appropriate replacement behaviors” (Lewis, 2000). For example teachers may provide students with reminders of expectations before an activity begins, giving prompts, and rehearsing procedures for a specific setting before children enter. Active supervision is described as adults modeling appropriate behaviors for students to discourage problem behaviors. Using proximity, moving around the setting, interacting with students, and reinforcing the expectation are all examples of active supervision (Lewis, 2000).
A study conducted by Colvin, Sugai, Good, and Lee (1997) when using pre-correction with active supervision showed a substantial reduction in problem behavior (as sited in Lewis et al., 2000). Within an unstructured activity, such as recess, data proves a decrease of problem behavior following the intervention of pre-correction and active supervision (Lewis et al., 2000). The results also provided proof that implementation of a pro-active instruction based school-wide system of behavior support reduced the rates of problem behaviors (Lewis et al., 2000).

**School Bus**

Public schools are responsible for providing a safe environment for students to learn. This requirement takes place in variety of settings, including the school bus. The National Highway Transportation Safety Administration (2002), concludes that 25 million children travel 4 billion miles on 440,000 school buses each year (Galliger, Tisak, & Tisak, 2008; Lartey, Telljohann, & Price, 2006). Of all school age children, nearly 60% of them ride the bus to and from school on a daily basis (Galliger, Tisak, & Tisak, 2008).

Over the past two decades, 1,337 fatal traffic crashes have been reported related to school transportation (Lartey, Telljohann, & Price, 2006). Any major injuries bus-related are not due to road crashes, but events such as getting on and off the bus or pedestrians crossing the road near a bus (Goldman & Peleg, 2010; Lartey, Telljohann, & Price, 2006). While evidence shows the number of students using school buses to and from school has declined (Faulkner, Richichi, Buliung, Fusco, & Moola, 2010), bus travel is proven the safest method for traveling to school (Goldman & Peleg, 2010).

Main concerns on a bus deal with rowdiness, excessive noise, and violence on the bus which put students in danger as well as district bus drivers (Goldman & Peleg, 2010). Bus
drivers surveyed that 61% of misbehaviors dealt with noise outbursts, 48% concern students out of their seats, and 31% dealt with roughhousing. When students engage in rowdiness and/or violence, most often discipline occurs, such as suspension of bus privileges or a discipline referral is given to the student. Goldman & Peleg (2010) concluded that there were differences in the frequency of unsafe bus behavior. For example, to school there was a frequency of 27.2% unsafe behaviors reports, while from school 51.3% was reported. A greater number of primary students were also unsafe in comparison to secondary students (46.2% to 31%). Lastly, any route with five or more stops had 58.3% misbehaviors compared to a route with 1-4 stops only have 27.5% unsafe behaviors (Goldman & Peleg, 2010).

Goldman & Peleg (2010) stated, “Bus drivers cannot be expected to enforce seatbelt use and deal with pupil misconduct while also driving safely. Innovative strategies for improving pupil behavior on school buses are needed to increase pupil safety.” Hirsch, Lewis-Palmer, Sugai, & Schnacker (2004) agreed and suggested that school bus drivers and/or transportation directors apply the strategies for analyzing school discipline referrals to buses so that behavior on buses would improve. Hirsch et al. (2004) stated that a failure to provide effective discipline in a bus setting would result in difficulties within the classes following the transportation. One strategy encouraged by Goldman & Peleg (2010) is to include a code of conduct for students riding a school bus. Also, other common practice utilized in the United States is to assign seats for students, visits by school authority figures, and teaching appropriate bus behaviors throughout the school year (Goldman & Peleg, 2010).
Gender

A question for gender and its effects of problem behaviors, boys have a higher rate of disruptive behavior than girls (Keenan & Shaw, 1997; Parent, Forehand, Merchant, Edwards, Conners-Burrow, Long, & Jones, 2011). Not only do boys misbehave more than girls, boys receive harsher verbal and physical discipline than girls (Lansford, 2010).

While mothers use harsh discipline more often than fathers (Straus & Stewart, 1999; McKee, Roland, Coffelt, Olson, Forehand, Massari, Jones, Gaffney, & Zens, 2007), fathers used harsher physical discipline with boys than mothers (McKee et al., 2007; Lansford, 2010). “Harsh physical and verbal discipline of children is an almost universal parenting practice in the United States” (Stratus & Field, 2003; McKee et al., 2007). Almost 90% of parents admitted to using one or more instance of harsh verbal discipline in the past year (McKee et al., 2007). Seventeen percent of parents believed that corporal punishment was necessary (Lansford, 2010).

Two styles of parenting found to be ineffective are authoritarian and permissive (Baumrind, 1966; Parent et al., 2011). Authoritarian parenting generally consists of harsh discipline and high levels of yelling or physical punishment while permissive parenting is more relaxed and doesn’t respond consistently to problem behavior (Parent et al., 2011). “Findings revealed that higher levels of harsh discipline were related to more intense disruptive behavior of both boys and girls, whereas higher levels of permissive discipline were related to more intense disruptive behavior of only boys” (Parent et al., 2011, p. 527).

Punitive disciplinary actions have been linked to child maltreatment and negative outcomes for children (Budd, Behling, Li, Parikshak, Gershenson, Feurer, Danko, 2011). Harsh discipline (physical and verbal) has been associated with higher levels of child externalizing
disorders (McKee et al., 2007). Positive parenting is linked to less child behavior problems
(McKee et al., 2007). So while this research shows how harsh discipline and positive parenting
effect children in their home environment, the researcher believes more research is needed to
determine if the same is true for the school setting.

Summary

Over hundreds of years education in the United States has shifted to encourage adults to
provide more of a proactive approach for children when handling discipline. Though PBIS was
intended to use with special education students, it gained rapid momentum because of its impact
on individual’s achievement scores and a decrease in problem behaviors school wide (Vaughn,
2006; Bradshaw, Reinke, Brown, Bevans, & Leaf, 2008). Schools began using the SET as a tool
to evaluate themselves on the implementation of PBIS. This tool is used to determine areas of
weakness and how to improve PBIS implementation. The researcher also shared information or
data on playground, buses, and gender to provide background on how PBIS implementation may
affect these locations within the school setting.

In Chapter Three, the researcher includes a rationale for the quantitative study. The
research methodology, additional explanation of how the research questions are addressed, and
the data collections methods are all detailed in Chapter Three.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

In recent decades public schools have shown an increase in problem behaviors concerning parents, families, and communities (Lewis et al., 1998). Current discipline policies within schools have also proven to intensify patterns of students’ negative behaviors (Lewis et al., 1998). Dealing with problem behaviors Martinez (2009) claims an early intervention is best. Also a systematic school-wide approach where a school uses preventive strategies created a positive school culture (Martinez, 2009). To increase student’s positive behavior within the researcher’s school district, many others in the state of Missouri, and school districts across the United States, they have implemented a support system called Positive Behavior Interventions and Supports (PBIS).

Though many educators would suggest Positive Behavioral Interventions and Supports (PBIS) is a new trend being implemented into the educational system, research proves differently. Positive Behavioral Interventions and Supports has grown since its inception in the early 1990s and is now implemented in over 10,000 schools in 40 states (PBIS, 2013). PBIS is supported by the U.S. Department of Education and eleven other centers across the country. For example, the state of Missouri’s initiative began in 1999 at the University of Missouri with grants approved by the Missouri Department of Elementary and Secondary Education (DESE). Within the state of Missouri, currently Missouri Southwest – Positive Behavior Supports (SW-PBS), almost 600 schools are involved (PBIS, 2013). The purpose of PBIS is to create safer and more effective schools. This is done through long-term implementation of efficient and effective
discipline. “Their methods are research-based, proven to significantly reduce the occurrence of problem behaviors in schools and supported by a three-tiered model” (DESE, 2013).

Throughout this paper, the researcher discussed the purpose of the study as well as several research questions. The design of the study was discussed thoroughly by describing the population and sample, data collection and instrumentation, data collection procedures, protection for human subjects, data analysis, and reliability and validity. Next, the researcher explained the limitations, assumptions, and design controls of the study. Finally, this paper concluded with a summary of key points included in the design and methodology section.

Again, PBIS provides an outline to guide schools in effectively implementing practices. Though thousands of schools are implementing these practices, no two schools are identical. Therefore, when implementing PBIS in a school, fidelity is vital. Therefore, the purpose of this study was to explore whether or not PBIS decreased the number of office discipline referrals within a rural southeastern Missouri elementary building of third, fourth, and fifth grade students. This study determined if PBIS initiative is worth spending a professional development stipend.

**Purpose of the Study**

The purpose of this study was to determine how PBIS affects the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females. This study determined PBIS had enough positive results from school’s students and staff to warrant spending professional development stipends for training.
Success School District had six elementary buildings and all have implemented the use of PBIS. However, each elementary building was in a different year of training or in the implementation process. This study was proposed as a possible source for the district to use for future planning, including professional development offered to teachers. Also, this study may help other schools who are considering PBIS or who are currently using PBIS as guideline for implementation.

This study was conducted in all elementary buildings within Success School District. The results of this study provided information to the district on whether PBIS was truly decreasing the number of student referrals because of its implementation. Due to the fact that one elementary building was studied the researcher is conducting a longitudinal study. Data was collected from the first year of PBIS implementation (2006-2007) for six years (2012-2013). The format of this study was quantitative and the number of discipline referrals were collected using the program School-wide Information System (SWIS).

**Research Questions**

The research questions guiding this study were:

1. How does the implementation of PBIS affect the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students?

   The null hypothesis for RQ1 was the implementation of PBIS had no effect on the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students.

2. How does the implementation of PBIS affect the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students?
The null hypothesis for RQ2 was the implementation of PBIS had no effect on the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students.

3. How does the implementation of PBIS affect the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ3 was the implementation of PBIS had no effect on the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students.

4. How does the implementation of PBIS affect the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ4 was the implementation of PBIS had no effect on the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students.

5. How does the implementation of PBIS affect the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ5 was the implementation of PBIS had no effect on the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students.
Design for the Study

The research questions were addressed through the use of a quantitative research design. Within this study the researcher used a program evaluation for the implementation of PBIS and its effects on office discipline referrals. This study was non-experimental, quantitative; the design of the study was action research along with comparatives between the years of PBIS implementation. The main data sources used were the number of office discipline referrals (ODRs) for one elementary building with students third through fifth grade. The chosen elementary building had similar populations for the past six years and was using PBIS. Several PBIS tools and surveys are completed on an annual basis and those were analyzed to determine that PBIS was implemented effectively in this elementary building.

The purpose of the non-experimental study was to test the impact of PBIS on the number of office discipline referrals (Creswell, 2009). The purpose of the PBIS SET tool was to determine the strengths and weaknesses of PBIS implementation within this one elementary building in the Success School District. The researcher wanted to determine if PBIS has affected the number of office discipline referrals. The researcher ran a ChiSquare tested the relationships between the number of referrals each year in an elementary building, on a playground, on the buses, and gender. This was an appropriate test to run because it determines significance when using comparative data (Field, 2009).

Population and Sample

In the Success School District all six elementary buildings were currently implementing PBIS, though most were at a different year of implementation. Achieve Elementary was the first to begin formal PBIS training in 2006-2007. Lead Elementary and Peace Elementary began in 2011. In 2012, Happy Elementary, Justice Elementary, and Star Elementary began PBIS
training. Achieve Elementary was selected for the study because of its longevity with the implementation of PBIS.

Success School District was selected from a district located in southeast Missouri that has nine schools and a student population of 4,620; there were six elementary buildings kindergarten-fifth grade, one middle school grades sixth-seventh, one junior high grades eighth-ninth, and one high school, grades tenth-twelfth (DESE, 2013). Success School District is accredited with distinction, has a 95.1% attendance rate, and has a 35.9% free and reduced lunch rate (State of Education Department website, 2013).

Achieve Elementary’s demographics for 2011-2012 school year were an enrollment of 512 with 95.9% white population and 43.1% of students qualified for free and reduced rate (DESE, 2013). Demographics remained consistent at all six elementary buildings in the district. This consistency also encouraged the researcher in selecting this target population. Mertens (2005) stated, “When the accessible population represents the target population, this establishes population validity” (p. 309).

At Achieve Elementary there were 35 full time certified staff members and one certified part time teacher. The 36 certified staff included, one principal, one assistant principal, and 34 remaining were teachers. This included five third grade teachers, eight fourth grade teachers, eight fifth grade teachers, one art, one music, one P.E. coach, one librarian, one counselor, two reading specialists, and six special education and speech teachers. There were also 26 support staff, which includes custodians, paraprofessionals, secretaries, and kitchen staff.

The researcher was familiar with PBIS implementation and training because the researcher had past professional experience and was a part of one elementary building’s
implementation process. Selecting this district and the one elementary building was also considered a convenience sample (Creswell, 2009).

**Data Collection and Instrumentation**

Data collection was quantitative and archival data was gathered from one elementary building within the district. The first was the collection of ODR data from one elementary buildings using SWIS, an online web based program. The second piece of quantitative data collected was the PBIS SET tool to provide feedback to the elementary building strengths and weaknesses of their PBIS implementation.

**Data Collection Procedures**

**Archival Data**

The researcher gained approval of using the schools’ records through the elementary building principal and from the central office of the District. Archival data was collected through School-wide Information System (SWIS) which was stored on the web and allows the site administrator to organize, manage, and report ODRs. The Self-Assessment Survey (SAS) was given to the whole staff annually; the School-wide Evaluation Tool (SET) was an on-site evaluation completed by the PBIS trainer and two other outside evaluators using a rating system to determine the implementation of PBIS in this elementary building.

*School-wide Information System (SWIS).* SWIS is a web-based computer program that is used for organizing, managing, and reporting ODRs to assist with decision making by teachers, administrators, and staff (National Technical Assistance Center on Positive Behavior Interventions and Supports website, 2010). When a problem behavior occurs in the school setting a staff member completed an ODR form. The student brought the form personally to the office. Next, the student and the principal met to discuss the behavior. The principal recorded
this incident in SWIS for documentation. SWIS has several reports that can be prepared to provide information to the PBIS team or a grade level team struggling with a specific behavior. For example, there is a Big 5 Report that describes the entire schools ODRs (the average number of ODRs per day, per month, the incident, the location, the time of day, and the number of ODRs per student with an identity protected code). This generic report was viewed by the faculty each month to determine where and what interventions should be implemented to decrease negative behaviors. Also, more specific reports could be run for a grade level team or even on one specific student. These types of reports were generally discussed during weekly collaborations. Report examples were shared with the researcher by each building administrator.

All six elementary buildings had similar ODR forms. Achieve Elementary’s ODR had six main components. The first section provided the principal with the name of the student, the date and time the incident occurred, the grade level of the student, the classroom teacher, the person completing the form, and the location of the incident. The next component was the reason the referral was being sent. Did the child fail to follow the rules regarding safety, respectfulness, or being responsible? Section three described the student’s possible motivation for the incident. Also, others involved in the incident were documented. Next, information was provided on what actions the teacher had taken prior to the referral. Finally, the principal completed the portion of the ODR to describe what action or consequence was taken with the student concerning this ODR. The ODR forms were given to the researcher by each elementary principal.

Self-Assessment Survey (SAS). The SAS survey was developed to assist the PBIS team or the staff in creating an action plan for the school. The data from the survey provided the PBIS team information needed to use when decision-making and to evaluate the implementation of
PBIS within the building (National Technical Assistance Center on Positive Behavioral Interventions and Supports, 2010). The requirement of this survey was to provide data annually for three years, the year prior to beginning PBIS, the second year which was considered a planning year, and the third year was actually the first year of official PBIS implementation. The main reason the PBIS facilitators encouraged the use of SAS was because it is reliable and valid. Fink (2006) stated to ensure reliability and validity is to use a survey someone else has prepared and demonstrated to be reliable and valid through careful testing.

The SAS survey included 46 questions with four sections: School-wide Systems (18 questions), Non-classroom Setting Systems (9 questions), Classroom Systems (11 questions), and Individual Student Systems (8 questions). Each section and question had two rating systems. The first was to evaluate if a staff member believed this area was in place, partially in place, or not in place. Secondly, the staff member marked the need for improvement with high, medium, or low need. The survey was automatically tallied and totaled online by SAS. A bar graph was provided to the school that describes the current reality and the priority of where to begin planning for the school’s action plan (Sugai et al., 2000). Safron (2006) determined using Cronbach’s alpha for the eight subscales and total scale scores, that the total scale reliability had a current status of .85 and the total scale improvement was .94. This was considered moderate to high reliability. The current status subscale coefficient alpha levels were .60 to .75, which was considered unacceptable to acceptable. There was a higher relation to internal consistency for improvement priority compared to current status (Safron, 2006). The final SAS report was given to the researcher by each elementary principal.
At Achieve Elementary the SAS data collected is shown below:

<table>
<thead>
<tr>
<th>School Year</th>
<th>School-Wide Implementation</th>
<th>Non-Classroom Implementation</th>
<th>Classroom Implementation</th>
<th>Individual Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>83%</td>
<td>75%</td>
<td>81%</td>
<td>55%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>80%</td>
<td>85%</td>
<td>79%</td>
<td>49%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>80%</td>
<td>79%</td>
<td>77%</td>
<td>56%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>91%</td>
<td>88%</td>
<td>88%</td>
<td>63%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>92%</td>
<td>98%</td>
<td>89%</td>
<td>82%</td>
</tr>
</tbody>
</table>

This data collection showed the staff at Achieve Elementary was held accountable for ranking the school’s level of implementation. Over five years, the implementation increased in all four areas of the building. The greatest improvement was in the individual child implementation going from a 55% implementation in year one to an 82% implementation by year five of implementation.

School-wide Evaluation Tool (SET). The purpose of the SET was to evaluate the implementation of PBIS in the school annually. This evaluation tool was conducted before beginning PBIS implementation, 6-12 weeks after implementation, and annually thereafter. The results of the SET were evaluated by the PBIS team to determine which PBIS components had been implemented fully, set annual goals, continue to evaluate on-going practices, create new practices, and the growth of PBIS each year (Sugai, Lewis-Palmer, Todd, & Horner, 2001).

The SET was conducted by a PBIS trainer. The school registered for a time once they were ready to be evaluated. Several items the evaluator needed to review during the SET were the school’s discipline handbook, school improvement plan, PBIS action plan, social skills instructional material and times the PBIS lessons were taught, office discipline referral data, ODR form, and any other related items that would contribute to the evaluation (Sugai et al., 2001).
During the completion of SET, the evaluator had an implementation and scoring guide, as well as interview questions. There were 28 items total that were broken into seven categories (defined expectations, behavioral expectations taught, on-going system for responding to behavioral violations, monitoring and decision making, management, and district level support). Six questions were related to materials created by the school that were visible to students and staff. Two questions concerned observations that the evaluator conducted. Nineteen questions were based on the interview question and one question was both produced and interview based. To follow proper protocol the evaluator must interview at least ten staff members, 15 students, and the administrator to complete the SET accurately (Sugai et. al., 2001).

The evaluator of the SET scored each item zero, one, or two based on criteria within the scoring guide. Each section was calculated and then a percentage was determined. The percentage told the school what the implementation had for each section. The total SET percentage for all areas was figured by adding all sections together and then divide by the number of sections. The SET was found highly reliable, high test-test reliable, and high construct valid (Sugai et. al., 2001). Cronbach’s coefficient alpha was used to find the internal consistency reliability and found an overall alpha of 96, which was acceptable (Horner, Todd, Lewis-Palmer, Irvin, Sugai, and Boland, 2004). The SET was given to the researcher by the administrators within the district.

At Achieve Elementary the SET data collected is shown below:

<table>
<thead>
<tr>
<th>School Year</th>
<th>School-Wide Implementation</th>
<th>Criterion 80/80</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>98%</td>
<td>True</td>
</tr>
<tr>
<td>2009-2010</td>
<td>100%</td>
<td>True</td>
</tr>
<tr>
<td>2010-2011</td>
<td>100%</td>
<td>True</td>
</tr>
</tbody>
</table>
This data collection showed the staff at Achieve Elementary was held accountable by PBIS consultants ranking the school’s level of implementation. Over the first three years, the implementation increased from a 98% to 100%. This percentage of implementation proved that Achieve Elementary had followed PBIS training and implemented the necessary components to be considered a PBIS school.

**Human Subjects Protection**

A one page cover letter was sent to Success School District’s superintendent and the one elementary administrator to keep all informed and included in the study. Once the administrator and central office administration agreed to participate in the study, the researcher explained that all answers and data collected would remain confidential and only be used as a part of this study. All data used with student incidents were coded with a random number to protect the identity of every child. This was done automatically within the SWIS program.

**Data Analysis**

When collecting data, it was extremely important to take necessary precautions of all data collected. “Researchers need to protect their research participants; develop a trust with them; promote the integrity of research; guard against misconduct and impropriety that might reflect on their organizations or institutions; and cope with new, challenging problems” (Creswell, 2009). The researcher of this study ensured that all data collected was used with extreme confidentiality and professionalism.

**Research Question One**

To determine if the implementation of PBIS affected the number of student office discipline referrals in an elementary building the use of archival data was utilized. Utilizing quantitative data allowed the researcher to better understand the PBIS implementation years of
an elementary building and the number of office discipline referrals using SWIS. The ODR, SAS survey results, and SET survey results were analyzed by using SPSS to determine if the greater number of PBIS implementation years effected the number of ODRs for each building.

**Research Question Two**

Based on the ODR data collected in SWIS, archival data was utilized to determine if the implementation of PBIS affected the number of student office discipline referrals on the playground. The data was entered in SPSS to test whether or not ODRs were affected in one location on campus of the elementary building because of PBIS implementation.

**Research Question Three**

Based on the ODR data collected in SWIS, archival data was utilized to find if the implementation of PBIS affected the number of student office discipline referrals for buses. The data was entered in SPSS to test whether or not ODRs affected the number of bus referrals because of PBIS implementation.

**Research Question Four**

Based on the ODR data collected in SWIS archival data was utilized to test if PBIS implementation affected the number of student office discipline referrals for boys. The data was entered in SPSS to test whether or not PBIS implementation affected the number of student office discipline referrals for boys.

**Research Question Five**

Based on the ODR data collected in SWIS archival data was utilized to test if PBIS implementation affected the number of student office discipline referrals for girls. The data was entered in SPSS to test whether or not PBIS implementation affected the number of student office discipline referrals for girls.
Reliability and Validity

The quantitative study ensured reliability by the triangulation of different data sources such as ODR data, SAS survey results, and SET evaluation data. The researcher examined evidence from the data sources and the findings led to themes (Creswell, 2009). Both the SAS and SET were reliable according to Cronbach’s coefficient alpha (Safron, 2006). Also the researcher was open and honest when discussing the limitations and assumptions of the study. A self-reflection clarified any bias of the researcher and was addressed in the study.

The researcher used sampling strategies to establish validity. The sample was predetermined by having an elementary building of students in the Success School District as participants. This guaranteed no specific selection of certain students. The data used within this study was analyzed with both descriptive and inferential numeric analysis (Creswell, 2009).

Limitations, Assumptions, and Design Controls

Limitations

The study had limitations but actions were taken to address each limitation. The researcher acknowledged this study may be limited because one rural southeast Missouri school district was included in the study. One elementary building was included in the study, from one school district. The school district considered demographics when collecting and analyzing data from their rural school. Concentrating on one elementary building allowed the researcher to focus on the implementation of PBIS and results.

Assumptions

The researcher was familiar with PBIS implementation process through past professional experience and training. The observations and trainings of the researcher were described as participant observations (Yin, 2009). Since the researcher was considered a participant, the
collection of data created security between the elementary administrator and the researcher. The researcher worked throughout the study to stay objective and the data reflect the results and findings.

**Design Controls**

The limitations and actions taken to address each limitation were appropriate. The school district and elementary building using the data and results for future planning addressed the demographics and small sample size of one elementary school. The small sample size allowed the district and elementary building to focus on the district and refer to data for district decision making. This also allowed them to determine if a professional development stipend on PBIS was appropriate.

**Summary**

Chapter Three provided background information on the purpose of PBIS and the implementation process within a school building and district. While the public is pushing for schools to improve behaviors of students, PBIS provides a systematic school-wide proactive approach to decreasing incidents of negative student behavior. PBIS had four components to implement, which are identify measurable academic and behavior outcomes, decide on evidence-based practices, use data to evaluate practices, and have system support.

The study had five research questions. The first question addressed the implementation of PBIS and its effects on the number of student ODRs in an elementary building. The second question addressed the implementation of PBIS effects on the number of student ODRs on the playground. Third, the implementation of PBIS effects on the number of student ODRs on buses. Fourth, the implementation of PBIS effects on the number of student ODRs for boys. Finally, the implementation of PBIS effects on the number of student ODRs for girls.
The following archival data was collected: Office Discipline Referrals, SAS results, and SET results. The data analysis was organized by research questions. The five research questions used quantitative analysis. The data tools used were considered reliable and valid.

The researcher had prior experience with the implementation of PBIS by attending quarterly training sessions and PBIS Summer Institute from 2011-2013. All limitations and assumptions were addressed by the researcher in an appropriate manner. The use of several data sources ensured that the study was trustworthy.
CHAPTER FOUR

STATISTICAL ANALYSIS

Introduction

The purpose of this study was to determine how PBIS affects the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females.

The research was guided by five research questions:

1. How does the implementation of PBIS affect the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students?

The null hypothesis for RQ1 was the implementation of PBIS had no effect on the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students.

2. How does the implementation of PBIS affect the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ2 was the implementation of PBIS had no effect on the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students.

3. How does the implementation of PBIS affect the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students?
The null hypothesis for RQ3 was the implementation of PBIS had no effect on the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students.

4. How does the implementation of PBIS affect the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ4 was the implementation of PBIS had no effect on the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students.

5. How does the implementation of PBIS affect the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students?

The null hypothesis for RQ5 is the implementation of PBIS has no effect on the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students.

The study was designed as a correlational study to determine the relationship between the independent variables of office discipline referrals in an elementary building, office discipline referrals on the playground of an elementary building, office discipline referrals on the buses serving an elementary building, office discipline referrals of males in an elementary building, and office discipline referrals of females in an elementary building and how the implementation of Positive Behavior Interventions and Supports (PBIS) affected office discipline referrals. The independent variables selected were measureable, comparable, referenced in prior research, and were related to years of PBIS implementation. The dependent variable is the number of student
discipline referrals, therefore it was used to determine effectiveness in this study. Data were available on one elementary school in southeast Missouri, so sampling was not necessary. To analyze the data, Chi Square was conducted using SPSS software and Microsoft Excel. A 95% confidence interval was used to determine statistical significance.

**Descriptive Analysis**

The population in this study was based on information recorded in School-wide Information System (SWIS) to the PBIS team and elementary principal at Achieve Elementary. A summary of these data is in Table 4.1. The overall number of student office discipline referrals for the past five year (i.e. regardless of gender or location) is included for the past five years. The scores ranged from a high of 190 office discipline referrals to a low of 75 office discipline referrals. Average number of referrals per year was 119.8.

Table 4.1

*Student Office Discipline Referrals*

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>75</td>
</tr>
<tr>
<td>2009-2010</td>
<td>109</td>
</tr>
<tr>
<td>2010-2011</td>
<td>190</td>
</tr>
<tr>
<td>2011-2012</td>
<td>114</td>
</tr>
<tr>
<td>2012-2013</td>
<td>111</td>
</tr>
</tbody>
</table>

\[ \chi^2 (4) = 59.79, \ p < .05 \]

Follow-up tests indicate the following homogeneous subsets at the .05 level:

<table>
<thead>
<tr>
<th>Year</th>
<th>Subset 1</th>
<th>Subset 2</th>
<th>Subset 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009-2010</td>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>2010-2011</td>
<td></td>
<td></td>
<td>190</td>
</tr>
<tr>
<td>2011-2012</td>
<td></td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>2012-2013</td>
<td></td>
<td>111</td>
<td></td>
</tr>
</tbody>
</table>
Data Analysis

The data generated were analyzed using a Chi Square analysis to determine the relationship among the independent variables as they relate to the dependent variable. This was an appropriate test to run because it determined significance when using comparative data (Field, 2009).

The predictive model generated by the produced overall number of office discipline referrals yielded a significant difference in the frequency of total referrals over time, $\chi^2 (4) = 59.79, p < .05$. This suggested that the values of the independent variable of years of PBIS implementation had a significant influence on the dependent variable of student office discipline referrals. The data for each separate research questions are displayed below in Table 4.2 a-e. Although collectively the independent variables in the research questions significantly predict office discipline referrals, each research question will be addressed individually.

Table 4.2.a

*Model Summary (Office Discipline Referrals in an Elementary Building)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>30</td>
</tr>
<tr>
<td>2009-2010</td>
<td>50</td>
</tr>
<tr>
<td>2010-2011</td>
<td>78</td>
</tr>
<tr>
<td>2011-2012</td>
<td>36</td>
</tr>
<tr>
<td>2012-2013</td>
<td>45</td>
</tr>
</tbody>
</table>

$\chi^2 (4) = 28.89, p < .05$

Follow-up tests indicated the following homogeneous subsets at the .05 level:

<table>
<thead>
<tr>
<th>Year</th>
<th>Subset 1</th>
<th>Subset 2</th>
<th>Subset 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009-2010</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>2010-2011</td>
<td></td>
<td></td>
<td>78</td>
</tr>
<tr>
<td>2011-2012</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012-2013</td>
<td>45</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>
Q1: How does the implementation of PBIS affect the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students?

H1: The null hypothesis for RQ1 was the implementation of PBIS had no effect on the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students.

The number of office discipline referrals for five years within an elementary building was analyzed using a Chi Square test. The test indicated a significant difference in the frequencies, $\chi^2 (4) = 28.89, p < .05$. The null hypothesis was rejected because PBIS had significant impact on office discipline referrals. The individual Chi Square test proved an additional break down was needed for follow up with specific subsets. For example, 30 to 45 was subset one, 45 to 50 was subset two, and 78 was included in subset 3. Statistically this test confirmed that office discipline referrals started low, had a substantial peak in the middle, and ended low.

Table 4.2.b

<table>
<thead>
<tr>
<th>Model Summary (Office Discipline Referrals on the Playground)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>2008-2009</td>
</tr>
<tr>
<td>2009-2010</td>
</tr>
<tr>
<td>2010-2011</td>
</tr>
<tr>
<td>2011-2012</td>
</tr>
<tr>
<td>2012-2013</td>
</tr>
</tbody>
</table>

$\chi^2 (4) = 6.93, p > .05$

Q2: How does the implementation of PBIS affect the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students?
H2: The null hypothesis for RQ2 was the implementation of PBIS had no effect on the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students.

PBIS implementation did not significantly predict the number of office discipline referrals on the playground, $\chi^2 (4) = 6.93, p > .05$. The null hypothesis is confirmed that PBIS implementation had no significant impact on office discipline referrals on the playground. No additional follow-up tests were needed.

Table 4.2.c

Model Summary (Office Discipline Referrals on the Buses)

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>32</td>
</tr>
<tr>
<td>2009-2010</td>
<td>44</td>
</tr>
<tr>
<td>2010-2011</td>
<td>85</td>
</tr>
<tr>
<td>2011-2012</td>
<td>70</td>
</tr>
<tr>
<td>2012-2013</td>
<td>48</td>
</tr>
</tbody>
</table>

$\chi^2 (4) = 32.63, p < .05$

Follow-up tests indicated the following homogeneous subsets at the .05 level:

<table>
<thead>
<tr>
<th>Year</th>
<th>Subset 1</th>
<th>Subset 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>2009-2010</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>2010-2011</td>
<td></td>
<td>85</td>
</tr>
<tr>
<td>2011-2012</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>2012-2013</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Q3: How does the implementation of PBIS affect the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students?
N3: The null hypothesis for RQ3 was the implementation of PBIS had no effect on the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students.

PBIS implementation statistically suggested significance on the number of office discipline referrals on the buses serving an elementary building by the Chi Square test, $\chi^2(4) = 32.63, p < .05$. The null hypothesis was rejected because PBIS implementation had a significant impact on office discipline referrals on the buses. The relationship was statistically significant, and follow-up tests indicated the following subsets from 32 to 48 referrals for subset one and 70 to 85 referrals for subset two.

Table 4.2.d

*Model Summary (Office Discipline Referrals for Male Students)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>65</td>
</tr>
<tr>
<td>2009-2010</td>
<td>82</td>
</tr>
<tr>
<td>2010-2011</td>
<td>153</td>
</tr>
<tr>
<td>2011-2012</td>
<td>88</td>
</tr>
<tr>
<td>2012-2013</td>
<td>97</td>
</tr>
</tbody>
</table>

$\chi^2(4) = 46.04, p < .05$

Follow-up tests indicated the following homogeneous subsets at the .05 level:

<table>
<thead>
<tr>
<th>Year</th>
<th>Subset 1</th>
<th>Subset 2</th>
<th>Subset 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009-2010</td>
<td>82</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>2010-2011</td>
<td></td>
<td></td>
<td>153</td>
</tr>
<tr>
<td>2011-2012</td>
<td>88</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>2012-2013</td>
<td>97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q4: How does the implementation of PBIS affect the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students?
N4: The null hypothesis for RQ4 was the implementation of PBIS had no effect on the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students.

PBIS implementation statistically indicated significance on the number of office discipline referrals for males in an elementary building by the Chi Square test, $\chi^2 (4) = 46.04, p < .05$. The null hypothesis was rejected because PBIS implementation had a significant impact on office discipline referrals for males in an elementary building. The relationship was statistically significant, and follow-up tests indicated the following subset one from 65 to 88 referrals, 82 to 97 referrals for subset two, and 153 for subset three.

Table 4.2.e

*Model Summary (Office Discipline Referrals for Female Students)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>10</td>
</tr>
<tr>
<td>2009-2010</td>
<td>27</td>
</tr>
<tr>
<td>2010-2011</td>
<td>37</td>
</tr>
<tr>
<td>2011-2012</td>
<td>26</td>
</tr>
<tr>
<td>2012-2013</td>
<td>14</td>
</tr>
</tbody>
</table>

$\chi^2 (4) = 20.65, p < .05$

Follow-up tests indicated the following homogeneous subsets at the .05 level:

<table>
<thead>
<tr>
<th>Year</th>
<th>Subset 1</th>
<th>Subset 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2009-2010</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>2010-2011</td>
<td></td>
<td>37</td>
</tr>
<tr>
<td>2011-2012</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>2012-2013</td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

Q5: How does the implementation of PBIS affect the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students?
N5: The null hypothesis for RQ5 is the implementation of PBIS has no effect on the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students.

PBIS implementation statistically suggested significance on the number of office discipline referrals for females in an elementary building by the Chi Square test, $\chi^2(4) = 20.65$, $p < .05$. The null hypothesis was rejected because PBIS implementation had a significant impact on office discipline referrals for females in an elementary building. The relationship was statistically significant, and follow-up tests indicated the following subset one from 10 to 14 referrals and 26 to 37 referrals for subset two.

Summary

This chapter described the findings based on each research question and the corresponding hypothesis. A Chi Square analysis was used to determine if each research question revealed statistical significance. The null hypothesis for research questions one, three, four, and five were rejected because a significant relationship existed. For research question two, the null hypothesis was confirmed because there was no significance of PBIS implementation and office discipline referrals on the playground of an elementary building. For research questions one, three, four, and five an additional follow-up test was conducted and indicated that homogeneous subsets were necessary. In chapter five the findings will be examined further with conclusions, implications, suggestions for future research, and an overall summary.
CHAPTER FIVE

FINDINGS AND INTERPRETATIONS

Introduction

The purpose of this study was to determine how PBIS affects the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females. This study determined PBIS had enough positive results from school’s students and staff to warrant spending professional development stipends for training. The research was guided by five research questions:

Q1: How does the implementation of PBIS affect the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students?

H1: The null hypothesis for RQ1 was the implementation of PBIS had no effect on the number of student office discipline referrals in an elementary building of third, fourth, and fifth grade students.

The null hypothesis was rejected because PBIS had significant impact on decreasing office discipline referrals. The individual Chi Square test proved an additional breakdown was needed for follow up with specific subsets. Statistically this test confirmed that office discipline referrals started low, had a substantial peak in the middle, and ended low. This outcome seems to be in agreement with the prior research, that schools that successfully implement primary and secondary problem behavior prevention programs often report decreases in the number of students engaging in problem behaviors (Horner et al., 2004; Luiselli, Putnam, & Sunderland, 2002; Freeman et al., 2006).
In fact, time that was previously spent responding to students with more minor behavior problems became more available for providing support for students with intensive needs (Freeman et al., 2006; Wrosch, 2012). The results were interpreted similarly that consistent implementation of PBIS was influential in affecting office discipline referrals. PBIS created opportunities for a school to build a vision and make decisions for a school on a regular basis by focusing on outcomes, practices, systems, and data to guide direction for school-wide, specialized, and individual supports (Horner, Sugai, Todd, & Lewis-Palmer, 2000; Freeman et al., 2006). It was crucial for schools to have a systems approach for sustaining school-wide individualized planning processes because the full adoption of effective practices is likely to be challenging and necessary to make PBIS successful (Sugai & Horner, 2009; Freeman et al., 2006).

Q2: How does the implementation of PBIS affect the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students?

H2: The null hypothesis for RQ2 was the implementation of PBIS had no effect on the number of student office discipline referrals on the playground of an elementary school of third, fourth, and fifth grade students.

PBIS implementation did not significantly predict the number of office discipline referrals on the playground. The null hypothesis is confirmed that PBIS implementation had no significant impact on office discipline referrals on the playground. No additional follow-up tests were needed.

Lewis, Colvin, & Sugai (2000) go so far as to say that recess is an essential component to have educational and developmental needs met. However, many parents are concerned of safety
on the playground, lack of supervision, and students not being prepared because of poor social skills (Lewis et al., 2000). Active supervision has been identified as one of the most crucial features ensuring children stay safe, especially on the playground. This allows for appropriate play, and educational and developmental goals are more likely to be met (Lewis et al., 2000). Therefore, one question lingers in the researchers mind, could it be possible that there was no significance for referrals on the playground because the implementation of active supervision was not consistent among faculty members at Achieve Elementary. It is possible that this school should reevaluate their practices and provide both active supervision and teaching social skills to students is the implementation of pre-correction with active supervision following the instruction of social skills (Lewis, 2000).

Q3: How does the implementation of PBIS affect the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students?

N3: The null hypothesis for RQ3 was the implementation of PBIS had no effect on the number of student office discipline referrals on the buses serving an elementary school of third, fourth, and fifth grade students.

PBIS implementation statistically suggested significance on the number of office discipline referrals on the buses serving an elementary building by the Chi Square test. The null hypothesis was rejected because PBIS implementation had a significant impact on office discipline referrals on the buses. The relationship was statistically significant, and follow-up tests indicated the following subsets began low, increased to its highest point in the third year of PBIS implementation, and then decreased again in the last two years.
Goldman & Peleg (2010) stated, “Bus drivers cannot be expected to enforce seatbelt use and deal with pupil misconduct while also driving safely. Innovative strategies for improving pupil behavior on school buses are needed to increase pupil safety.” Hirsch, Lewis-Palmer, Sugai, & Schnacker (2004) agreed and suggested that school bus drivers and/or transportation directors apply the strategies for analyzing school discipline referrals to buses so that behavior on buses would improve. Hirsch et al. (2004) stated that a failure to provide effective discipline in a bus setting would result in difficulties within the classes following the transportation. One strategy encouraged by Goldman & Peleg (2010) is to include a code of conduct for students riding a school bus.

Q4: How does the implementation of PBIS affect the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students?

N4: The null hypothesis for RQ4 was the implementation of PBIS had no effect on the number of student office discipline referrals for male students in an elementary school of third, fourth, and fifth grade students.

PBIS implementation statistically indicated significance on the number of office discipline referrals for males in an elementary building by the Chi Square test. The null hypothesis was rejected because PBIS implementation had a significant impact on office discipline referrals for males in an elementary building. The relationship was statistically significant, and follow-up tests indicated the first two years of implementation were lower, increased to the highest point during the third year of implementation, and then dropped in the fourth and fifth year of PBIS implementation.

This result was interesting because it indicated that the implementation affected the number of office discipline referrals for male students in an elementary school. Where research
suggested for gender and its effects of problem behaviors, boys have a higher rate of disruptive behavior than girls (Keenan & Shaw, 1997; Parent, Forehand, Merchant, Edwards, Conners-Burrow, Long, & Jones, 2011). Not only do boys misbehave more than girls, boys receive harsher verbal and physical discipline than girls (Lansford, 2010).

Q5: How does the implementation of PBIS affect the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students?

N5: The null hypothesis for RQ5 is the implementation of PBIS has no effect on the number of student office discipline referrals for female students in an elementary school of third, fourth, and fifth grade students.

PBIS implementation statistically indicated significance on the number of office discipline referrals for females in an elementary building by the Chi Square test. The null hypothesis was rejected because PBIS implementation had a significant impact on decreasing office discipline referrals for females in an elementary building. The relationship was statistically significant, and follow-up tests indicated the similar pattern of lower numbers of referrals in the initial implementation, referrals rose in year three of implementation, and then dropped in years four and five.

Where research suggested for gender and its effects of problem behaviors, boys have a higher rate of disruptive behavior than girls (Keenan & Shaw, 1997; Parent, Forehand, Merchant, Edwards, Conners-Burrow, Long, & Jones, 2011). Not only do boys misbehave more than girls, boys receive harsher verbal and physical discipline than girls (Lansford, 2010). Punitive disciplinary actions have been linked to child maltreatment and negative outcomes for children (Budd, Behling, Li, Parikshak, Gershenson, Feurer, Danko, 2011). Harsh discipline (physical
and verbal) has been associated with higher levels of child externalizing disorders (McKee et al., 2007). Positive parenting is linked to less child behavior problems (McKee et al., 2007). So while this research shows how harsh discipline and positive parenting effect children in their home environment, the researcher believes more research is needed to determine if the same is true for the school setting.

**Additional Findings**

Two additional exploratory tests were run. The data are shown in Table 5.1.a-b

Table 5.1.a

<table>
<thead>
<tr>
<th>Year</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>65</td>
<td>10</td>
</tr>
<tr>
<td>2009-2010</td>
<td>82</td>
<td>27</td>
</tr>
<tr>
<td>2010-2011</td>
<td>153</td>
<td>37</td>
</tr>
<tr>
<td>2011-2012</td>
<td>88</td>
<td>26</td>
</tr>
<tr>
<td>2012-2013</td>
<td>97</td>
<td>14</td>
</tr>
</tbody>
</table>

$\chi^2 (4) = 7.96, p > .05$

The researcher crossed two variables (year and gender) to determine interactions between the variables. There was no statistical difference or ability to distinguish if the implementation of PBIS was affecting males or females greater, $\chi^2 (4) = 7.96, p > .05$. Both male and females followed a similar pattern of few referrals in the initial year of implementation, a substantial peak of referrals in the middle year of PBIS implementation, and then the office discipline referrals decreased greatly by year five.
Table 5.2.b

*Model Summary (Office Discipline Referrals for Location)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Building</th>
<th>Playground</th>
<th>Bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>30</td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td>2009-2010</td>
<td>50</td>
<td>15</td>
<td>44</td>
</tr>
<tr>
<td>2010-2011</td>
<td>78</td>
<td>22</td>
<td>85</td>
</tr>
<tr>
<td>2011-2012</td>
<td>36</td>
<td>8</td>
<td>70</td>
</tr>
<tr>
<td>2012-2013</td>
<td>45</td>
<td>15</td>
<td>45</td>
</tr>
</tbody>
</table>

$\chi^2 (8) = 14.54, p > .05$

The researcher crossed two variables (year and location) to determine interactions between the variables. There was no statistical difference or ability to distinguish if the implementation of PBIS was affecting building, playground, or bus greater, $\chi^2 (8) = 14.54, p > .05$. All locations followed a similar pattern of few referrals in the initial year of implementation, a substantial peak of referrals in the middle year of PBIS implementation, and then the office discipline referrals decreased greatly by year five.

**Implications for Practice**

This research produced implications for practice when implementing Positive Behavior Interventions and Supports (PBIS). First, it revealed some encouraging data that suggested financial professional development resources can be allocated towards the implementation of PBIS to help reduce the number of office discipline referrals, providing additional time for instruction. The most positive affirmation is that PBIS implementation is making a significant impact on the reduction of office discipline referrals in one elementary building in southeast Missouri. In effect, investing more in professional development stipends, time, and training with staff on the implementation of PBIS the researcher believes the results would be an even greater increase in student achievement results.
Secondly, this study confirmed that the office discipline referrals overall, in the building, on the playground, on buses, for males, and for females followed a consistent pattern. When the implementation of PBIS began at Achieve Elementary, the office discipline referrals were considerably lower, by year three there was a substantial peak in the number of office discipline referrals, but by year five the referrals had decreased. Several factors contributed to this pattern. For example, in 2010-2011 when there was a peak of office discipline referrals, Achieve Elementary had six new certified staff members, two additional classes were added (increasing the overall enrollment by 45 students) and the training consistency was questionable.

**Future Research**

As described in chapter two, additional research should be conducted on the roles of behavior for males and females in a school setting. Also, additional research should be done with data collection on office discipline referrals the year prior to the implementation of PBIS in an elementary school. This could provide additional input to the quality of research. Unfortunately, this research study did not settle the debate, nor was it intended to. However, it does continue the discussion and presents opportunities for future research.

The first opportunity for future research is the consideration of office discipline referrals on males and females in a school setting. The literature found on gender involved males and females being punished differently, mostly by parents, not in a school setting. Therefore, the researcher did not have a lot of prior knowledge regarding male versus female behavior in a school setting or which gender could benefit more positively due to the implementation of a program like PBIS.
Secondly, “Limited research exists to indicate best practices for designing and implementing behavior problems for school bus transportation” (Hirsch et al., 2004, p. 4) Strategies for identifying and monitoring a behavior program within the school bus setting would be a valid and timely endeavor (Hirsch et al., 2004). Although, evidence shows the number of students using school buses to and from school has declined (Faulkner, Richichi, Buliung, Fusco, & Moola, 2010), bus travel is proven the safest method for traveling to school (Goldman & Peleg, 2010). Though bus travel continues to be the safest form of travel for students, further research on how to implement a system for behavior problems is necessary to continue to reduce fatalities and injuries.

Another important factor that could be considered in future research is the number of office discipline referrals the year prior to implementation of PBIS. This could provide valuable information to educators and PBIS consultants that are trying to provide training or implementation that makes the largest impact on decreasing office discipline referrals in an elementary building, on the playground, on the buses, for males, and for females.

Lastly, the fact that one elementary building in a rural southeast Missouri school district was studied, a future study should expand research by looking at data from multiple elementary buildings in a variety of states across the United States. The researcher would like to see if data in other elementary buildings shows a correlation with this study. Many districts across the country are implementing PBIS and by adding other elementary buildings and districts to the data collection, educators would have a more precise picture of the effects of PBIS implementation on office discipline referrals.
Summary

The purpose of this study was to determine how Positive Behavior Interventions and Supports (PBIS) affect the number of office discipline referrals within a rural southeast Missouri school district. The researcher studied office discipline referrals within an elementary building, the school’s playground, school buses, and discipline referrals for males and females. This study determined PBIS implementation on one elementary building affected the reduction of office discipline referrals on all variables. Therefore, the researcher would suggest to the district studied, the allocation of professional development funding spent on PBIS is valuable and should continue.

A Chi Square analysis was used to determine if each research question revealed statistical significance. The null hypothesis for research questions one, three, four, and five were rejected because a significant relationship existed. For research question two, the null hypothesis was confirmed because there was no significance of PBIS implementation and office discipline referrals on the playground of an elementary building. For research questions one, three, four, and five an additional follow-up test was conducted and indicated that homogeneous subsets were necessary.

The debate of whether or not the implementation of PBIS decreases office discipline referrals in more than one elementary building, causing an improvement in student achievement is far from complete. However, the data and researcher proved that the professional development stipends spent in this one elementary building towards PBIS is necessary and should continue due to the proven positive effects. The debate about PBIS implementation should continue and school educators should always be searching for ways to improve results to decrease office discipline referrals, providing more instructional time for students.
References


Department of Elementary and Secondary Education. (2013).  

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VITA

The author, Jessica Maxwell, is from Jackson, Missouri. She was born and raised in this rural community. From an early age, Jessica believed she was born to be a teacher and live a life in the field of education. She continues to have a passion for learning and has gained a Bachelor in Education, Masters in Administration, and Specialist in Administration from Southeast Missouri State University and a Doctorate in Educational Leadership and Policy Analysis from University of Missouri Columbia. Currently, she is an elementary principal with Jackson R-2 School District. Jessica continues to love learning and has a passion to share this with other children, especially her own two children.