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The Effects of Positive Behavioral Interventions and Support on Student Discipline Referrals and Attendance

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THE EFFECTS OF POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORT
ON STUDENT DISCIPLINE REFERRALS AND ATTENDANCE

A Dissertation
Presented to
The Faculty of the Educational Leadership Doctoral Program
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

By
Gregory E. Ross

August 2012


THE EFFECTS OF POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORT ON
STUDENT DISCIPLINE REFERRALS AND ATTENDANCE

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This dissertation is dedicated to
My Lord and Savior, Jesus Christ,
who fills me with the passion
to help those without a voice; and
Shavonna,
my beautiful, patient, loving wife,
who pushed me to see this through to completion
no matter the obstacles in front of us.
Through this process you have shown me unconditional love,
and I am eternally grateful.

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Gregory Ross

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Directed by: Nedra Atwell, Margaret Maxwell, and Janet Applin

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Western Kentucky University

As school districts work to utilize instructional time, student behavior is often a huge hindrance to maximizing instruction. In 2001 while at the University of Oregon, Horner and Sugai created Positive Behavior Interventions and Support (PBIS), now utilized in over 7,000 schools throughout the country (Sugai & Horner, 2002). This program is provided to schools throughout Kentucky through a federal grant extended to the Kentucky Center for Instructional Discipline (KYCID).

This study analyzed PBIS in an elementary school in southwest Kentucky, McNabb Elementary, to measure the effect of PBIS on student discipline referrals and attendance. Referrals were evaluated from 2006-2012, to provide longitudinal data over time. Results of the study indicated that PBIS had a significant effect on discipline referrals within the school. Student attendance percentages also were gathered for a timespan of six years from McNabb Elementary. Results suggested that PBIS did not have a significant effect on attendance during the 2006-2012 school years. Future research of PBIS in Kentucky would be beneficial. Analysis of referral data bridging from elementary to middle school would provide extensive data for districts that have implemented PBIS. Also, a comparison of attitudes and satisfaction of parents of students who have participated in a PBIS program for at least three years would enlighten districts on parents' evaluation of PBIS.

CHAPTER I: BACKGROUND OF STUDY

Introduction

On January 8, 2002, under the direction of President George W. Bush, the No Child Left Behind Act (NCLB) became effective. All public schools throughout the country that received federal monies had to meet certain standards and would be held accountable to these standards (Gruenert, 2005). The primary goal of NCLB is to ensure that all students from all backgrounds and ability levels receive a quality education, reaching proficiency in math and reading. Although the theory behind NCLB was to strengthen the backbone of education, the law also did not predict the many hurdles and obstacles educators would face in trying to fulfill the law. One of the hurdles many teachers face in assuring that no child is left behind is the inability to effectively deal with behavior issues that may arise within the classroom setting. A section in NCLB states that all schools receiving federal funding are required to have appropriate disciplinary policies in place that effectively address behavior concerns (No Child Left Behind Act, 2001). Negative behavior can have a direct impact on the amount of instruction given and also the quality of the instruction within the classroom. Research supports the existence of a relationship between discipline/behavior problems and academic achievement (Flynt, 2008; Akey, 2006; Wexler, 1992). Negative behavior can act as a barrier to the instruction of content knowledge for all students in the learning setting, which affects the academic outcomes for all students (Wexler, 1992).

Public Agenda (2004), a private research and communication group, surveyed 725 middle and high school teachers nationally. The research showed that 97% of the teachers surveyed felt that a strong discipline system needs to be in place in order for students to

excel. The teachers felt the key area preventing students from learning is discipline problems such as disruptive behaviors. One-third stated they had actually considered quitting the profession of teaching due to the frequency and overwhelming demand of student behavior problems.

A large amount of school personnel resources and time are spent on students with discipline problems (Putnam, Luiselli, Handler, & Jefferson, 2003), leading to disciplinary strategies often recognized as ineffective. Suspension would be an example, as it has been shown to have very little positive effect on student success or change in behavior (Cameron, 2006). Actually, studies show zero-tolerance actions such as suspension do not improve overall school safety and are associated with lower academic performance, higher rates of dropout, failures to graduate on time, increased academic disengagement, and subsequent disciplinary exclusions (Achilles, McLaughlin, & Croninger, 2007) .

The tools used to monitor behavior in most schools are discipline referrals most often issued by the classroom teacher. Skiba, Peterson, and Williams (1997) found that behaviors that most often led to office referrals were disrespect and noncompliance rather than those that threaten safety. The referrals provided poor representation of consistency between seriousness of offense and severity of consequence. Their study also showed disproportion in the administration of school discipline based on race, SES, gender, and disability.

Behavior problems, underachievement, and poor development of pro-social skills affect many students in public schools throughout the United States (Rose & Gallup, 1998). Early signs of negative behaviors in school-age children are a proven predictor of

maladjustment into adulthood (Hawkins, Catalano, & Miller, 1992). Statistically, children who interact in antisocial behaviors such as destruction of property and violence at a young age are more likely than peers with positive behaviors to show aggression and negativity toward peers as they become adults (Loeber & Hay, 1997; Fagan, 1996). Research by Luiselli, Putnam, Handler, and Feinberg (2005) found problems such as violence, vandalism, bullying, and other disruptive behaviors create an unsafe learning environment, undermine instruction, and potentially pose a threat to all members of the school population. Within a school setting, if negative behaviors are not addressed in an appropriate and diligent way, violent and disruptive behaviors become more destructive over time, destroy the school environment, and lower the quality of life for the students and teachers (Walker et al., 1996).

Whether a student is absent because of an illness or due to school suspension and/or other disciplinary reasons, the exigent focus is that the student is not present to learn. According to the National Center for Children in Poverty (NCCP), chronic absence refers to students missing extended amounts of school when both excused and unexcused absences are seen. Chronic absence refers to 10% or more of the school year, which is basically 18 or more days in a 180-day school year (Chang & Romero, 2008). Primary grade students who are often out of the classroom tend to struggle academically. Absenteeism plays a major part in student achievement. Poor attendance averages within a school have become a direct factor leading to much lower test scores (Barrington & Hendricks, 1989). A student who is out of school for disciplinary reasons risks placing his or her personal academic future in jeopardy. Suspension removes students from school, which affects their attendance and the amount of instruction they receive. Dupper,

Theriot, and Craun (2009) found that suspension is effective in removing a problematic student from school, providing temporary relief to frustrated school personnel, and raising parental attention to their child's misconduct. However, these students are less likely to have parental supervision at home and are more in need of adult supervision than those students who are not suspended (Dupper et al., 2009; American Academy of Pediatrics, 2003).

Statement of the Problem

There is a constant drive within the field of education to ensure that the needs of all students are met in a variety of ways. New programs and initiatives are on the rise. Programs such as safe school initiatives, character education, drug-free zones, promotion of healthy habits, and school-wide discipline are constantly being promoted throughout school districts to address weaknesses such as behavior problems (Sugai & Horner, 2001). Similar to most states nationally, Kentucky places a huge emphasis on student achievement. Adoption of Common Core Standards, a new testing system known as K-PREP, and a focus on college and career readiness from a K-16 perspective are all parts of Kentucky's goal of strengthening student achievement. Education as an entity has an extreme focus on instructional strategies, interventions, and student success (Epstein, Atkins, Cullinan, Kutash, & Weaver, 2008). Yet, a major sidebar that makes it more and more difficult for students to reach this academic success is disruptive classroom behavior. The reduction of disruptive behaviors increases the amount of time students receive effective instruction (Epstein et al., 2008; Skiba, Michael, Nardo, & Peterson, 2002). Figures from the National Center for Education Statistics (2007) show students who struggle academically are more likely to be at risk of disciplinary problems and/or

consequences. As the concern to address negative behavior rises, the determination of the best way to address this behavior is paramount to teachers, schools, and districts across the country. A considerable amount of research has occurred in recent years showing relevance to positive behavior interventions for student discipline in various school or district settings (Luiselle, Putnam, Handler, & Feinberg, 2005; Mendez & Knoff, 2003; Skiba & Peterson, 2000; Sugai & Horner, 2002).

Research Questions

George Sugai and Robert Horner (2001), from the University of Oregon, created PBIS, an initiative based on positive reinforcement and proactive awareness of behaviors. The researchers used information from a school that had integrated PBIS to answer the following questions:

1. What effect do positive behavior interventions and support have on the number of in-school student discipline referrals?
2. What effect do positive behavioral interventions and support have on attendance?

Theoretical Framework

Two particular theories support this study. Cooper, Heron, and Heward (2005) define the theory of applied behavior analysis (ABA) as “the science in which the principles of the analysis of behavior are applied systematically to improve socially significant behavior, and in which experimentation is used to identify the variables responsible for change in behavior” (p. 20). Baer, Wolf, and Risley (1968) offer seminal work in the area of ABA. They identified seven dimensions of ABA, one being the applied dimension with a focus on social significance. The behavior analyst must not

focus only on what is presently observed, but also on what led to the situation. The analyst must consider how the changes in behavior affected the consumer over time.

Another important dimension in reference to the current study is the behavioral dimension, which focuses on what change took place in the actual behavior rather than on what may have been said about it. To take this one step further, the behavior analyst must be able to measure the change (Baer et al., 1968). Cooper et al. (2005) added five more dimensions to those created by Baer and colleagues: accountable, public, doable, empowering, and optimistic. Although the researcher feels all five apply, one appears to outweigh the others. The dimension of empowering directly speaks to this research, with the goal of providing feedback to the practitioners using and adopting this information and providing tools to effectively change behavior.

PBIS systems and the KYCID program align with the premise of the Social Learning Theory. Sims and Manz (1982) note that social learning entails modeling a new behavior to achieve consistent change. This theory also utilizes observational learning (Ormrod, 1999). In a PBIS system students are taught the desired behavior, and it is modeled several times daily. After the behaviors are modeled, they are observed. Students are held accountable by building-wide observations, rather than only the observation of the teacher. Also, as the community strengthens, students hold one another accountable. These two theories, ABA and social learning, structure the framework of this study.

Significance of the Study

Although PBIS is becoming a trusted strategy throughout the country, there are less than 15 years of practice within its research. Sugai and Horner (2001) created the

interventions at the University of Oregon in 2001. The majority of research to date focuses on prevention levels district-wide or within a grade level setting, with less focus on examples of effectiveness (Crimmins & Farrell, 2006). Analyzing how PBIS is effective in different cultural, social, and socio-economical settings will strengthen the empirical evidence. Although some research examines the effectiveness of PBIS, very few studies investigate how PBIS affects the connection of discipline referrals and student attendance (Flynt, 2008; Netzel & Eber, 2003). Also, the data included in this study is from a school with a minority population of 94% and free/reduced lunch rate of 96%, which is drastically different from the national norms.

Limitations of the Study

Limitations are conditions over which the researcher has no control (Gay & Airasian, 2000). The initial limitation of this study was the fact that the population of the primary research group was limited to the data of one elementary school in southwest Kentucky. Because of the unique characteristics of the school's size, diverse student population, staff characteristics, and implementation of school-wide PBIS, the school does not mirror the majority of other elementary schools in the region or across Kentucky. The results indicate a need for future replication of this study in schools with differing characteristics to validate the results of the impact of school-wide PBIS on student outcomes.

The SWIS and Infinite Campus data used in this study was obtained through self-reporting, which is an additional limitation. All schools within the state of Kentucky self-report daily disciplinary data and student information into the Infinite Campus system. Infinite Campus also is used to document attendance, student grades, special education notes, and behavior incidents.

Due to the homeless population and the school-wide SES within the school being analyzed, the population of the student body has a high transient rate, which may skew the attendance data. In the state of Kentucky, a school must report a student absence until a records request is provided by the receiving school, whether that student has moved or changed schools. Thus, reported absences lacked validity.

The researcher acknowledges that, although the study investigates only one PBIS intervention, other factors could have contributed to outcomes within this study.

Definition of Terms

Discipline: To teach or train (Amstutz & Mullet, 2005)

Discipline Referrals: Forms used to document a violation of a school district's code of conduct, or the policies and/or procedures in a school building (Putnam, Luiselli, Handler, & Jefferson, 2003)

Effective Schools: The Effective Schools Process begins with the collection and analysis of district and school data that reveal current academic, demographic, and perceptual conditions. The resulting Profiles present the data to allow the school/district to determine its strengths, needs, goals, and priorities. The Profile guides the entire Effective Schools Process in a district (Donnelley & Lee Library, 2012).

Overrepresentation: A particular group, race, or ethnicity that is overrepresented in a particular population

Positive Behavior Interventions and Support (PBIS): Established in 2001 at the University of Oregon, it is a framework or approach for assisting school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum that enhances academic and social behavior outcomes for all students

(Positive Behavior Interventions and Support, 2012)

Professional Development: Continual learning opportunities for the professional growth of employees within a school or a school district; training

Student Attendance: The rate at which a student attends school regularly. When a student misses a day of school, it is considered an absence. If a student misses more than 10% of a school year, it is considered a severe problem.

Socio-economic Status (SES): Combined economic and sociological measure of a person's work experience and the economic and social position of an individual or family in relation to others based on income, education, and occupation (National Center for Education Statistics, 2012)

School-wide Behavior Programs: Systematic program within a school developed to reduce discipline issues and teach values, beliefs, and rules associated with the school mission (Sugai & Horner, 2008)

Student Discipline: Consistently practiced and recited teaching and training to create positive behavior

Suspension, Out of School: A fixed amount of time a student is not allowed to attend school or be on school grounds. (Skiba, Peterson, & Williams, 1997)

Suspension, In School: An alternative setting that removes students from the classroom for a period of time, while allowing students to attend school and complete their work (Skiba et al., 1997)

Zero-Tolerance: A direct message that certain behaviors will be not be tolerated through a punitive measure to all who are in the population, without exemptions (Skiba & Peterson, 2000)

Summary

This chapter includes an introduction to the research addressed in this study and covers the statement of the problem followed by the research questions to be analyzed. A theoretical framework for the study was proposed. The significance of the study, limitations of the study and definitions conclude the chapter.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

The following review of literature will investigate behavioral concerns in public education. It also will address how the research of effective schools has played a role in the decisions made to enhance the education system. Next, the review will focus attention on school effectiveness within the state of Kentucky. The researcher will connect school effectiveness with PBIS (Positive Behavior Interventions and Support, 2012). Research will address how PBIS correlates with school culture and its effects on poverty. The implication and data on overrepresentation support the need for PBIS. The chapter will conclude as the researcher addresses the purpose of school effectiveness to provide opportunity for all.

Addressing Behavioral Concerns in Schools

Many teachers look forward to the moment they can challenge a young mind toward educational success. Yet, teaching involves so much more than instruction. Teachers are met with many more challenges and responsibilities than what is noted in core curriculum. They also face substantial nonacademic challenges that will have a major influence on the effectiveness of instruction. Many students are coming into educational settings without the social skills and emotional support needed to be academically successful (Hemmeter, Fox, Jack, & Broyles, 2007). Educators have tried many alternatives to address these issues. Most of the options presented have been punitive in nature. From expulsion and suspension to hiring police officers, the idea of creating a zero-tolerance atmosphere has made the problem more public and drastic than ever (Lassen et al., 2006).

PBIS is a national model that promotes school-wide behavior practices and has evolved on a state level with professional development opportunities and instructional coaches from KYCID. In the beginning years of KYCID, the state initiated the Kentucky Instructional Discipline in Schools (KIDS) project (Davis, 2011). Fifty schools were involved in this project between 2000 and 2003. The schools were provided with behavior coaches and trainers to assure teachers had the capacity to implement the program and also the knowledge base and support to implement all three levels of the intervention within the program: primary, secondary, and tertiary (Davis, 2011). Schools that were a part of this initial project saw significant decline in office referrals, suspension and expulsion rates, as well as an overall level of heightened teacher confidence (Waford, 2010).

There are now over 350 KYCID schools in the state of Kentucky (KYCID, 2011a). Research has shown the effectiveness of PBIS in public elementary schools (Bradshaw, Reinke, Brown, Bevans, & Leaf, 2008) and the benefits of PBIS on a state level, with research verifying its effectiveness in Maryland (Barrett, Bradshaw, & Lewis-Palmer, 2008); Florida (Childs, Kincaid, & George, 2010); New Hampshire (Muscott, Man, & LeBrun, 2008); Iowa (Mass-Galloway, Panyan, Smith, & Wessendorf, 2008); and Kentucky (Davis, 2011). School-wide positive behavior support clearly has been proven to be effective in most settings. However, the researcher will attempt to establish the effects of PBIS on discipline referrals and student attendance.

Effective Schools Research

On March 4, 1986, the House of Representatives Committee on Education and Labor subcommittee on elementary, secondary, and vocational education presented H.R.

747, The Effective Schools Development in Education Act of 1985. The committee gave a detailed definition of effective schools stating:

An effective school is orderly and safe. Its principal is not just an administrator. He or she is a leader who takes an interest in the quality of instruction; the mastery of basic and higher order skills is a school's prime focus. Teachers in effective schools have the expectation that all students will learn. It is a school in which an equal percentage of children from highest and lowest socioeconomic groups achieve at least a minimum level of academic mastery. (p. 1)

Twenty years prior to the Effective Schools Development in Education Act, research was being conducted on the effectiveness of schools within the United States. In 1966 The U.S. Department of Health, Education, and Welfare commissioned James Samuel Coleman to complete *The Equality of Educational Opportunity Study*, also known as *The Coleman Report*. This report is widely considered one of the most influential education studies of the 20th century. Its researcher, James S. Coleman, was truly an astute individual. He was the founder of Johns Hopkins Department of Social Relations in 1959. He also co-founded the Center for Social Organization of Schools in 1973 (Clark, 1996). In accordance with the Civil Rights Act of 1964, Coleman went to work on researching educational equality at a time when society was completely upside down. With data from over 600,000 students and teachers in over 4,000 schools across the United States, his research showed achievement among students was not as much about the quality of the school, but was about the social compositions of the school, the student's sense of control of his environment and future, the verbal skills of teachers, and the student's family background (Kiviat, 2000). In this report included many social

dynamics and an array of topics from a sociologist's point of view, but the one thing the media was happy to report in 1966 was that black children who attended integrated schools would have higher test scores if a majority of their classmates were white (Kiviat, 2000).

The *Coleman Report* held the nation accountable to its differentiation and asked the question, "Why?" It brought to light the drastic difference in educational latitude between students from different economic backgrounds, races, and/or both. The research from the report showed the impact between both in-school and home/community factors. It considered how each played a great part in the academic growth of students within these communities during a time when people were not emotionally concerned or ethically involved. *The Coleman Report* presented a thorough outlook of equal educational opportunities to children of different race, color, religion, and national origin. The Equality Educational Opportunity Study (EEOS) consisted of test scores and questionnaire responses obtained from students in grades 1, 3, 6, 9, and 12. The report introduced questions answered by teachers and administrators from all the involved backgrounds. Researchers used schools from all over the United States to collect this data, which included age, gender, race and ethnic identity, socioeconomic background, attitude toward learning, education and career goals, and racial attitude of students. The report also used scores from standardized tests given to the students by teachers. The areas assessed included verbal skills, nonverbal associations, reading comprehension, and mathematics. Data on teachers and principals included academic discipline, assessment of verbal facility, salary, education and teaching experience, and attitudes toward race. As expected, the report found that U.S. schools were highly segregated and noted

inequalities in American public schooling, not only between schools but also within schools (Coleman, 1966). These outcomes differed significantly from what the Effective Schools Development in Education Act of 1985 would consider school effectiveness. The Coleman study prompted much debate and research in the area of school effectiveness.

Recent research reviewed the 1966 Equality of Educational Opportunity report on the 40th anniversary of its publication and made surprising conclusions (Wisconsin Center for Educational Research, 2007). This study revealed similarities between today's educational gaps and those in 1966. One example was in desegregation. Although the Wisconsin Center for Educational Research showed gains in desegregation in the 1980s, these gains were practically reversed in the 1990s. According to some indicators, levels of segregation were nearly as high in 2006 as they were in 1966. Although black/white achievement gaps are smaller today than in 1966, they remain substantial (Gamoran & Long, 2006). A large number of school districts in the 1990s experienced re-segregation, diminishing the major gains that were seen from 1954 to the 1980s (Orfield & Eaton, 1997). Resegregation is due in part to growing minority enrollment, but a large part is due to the effects of the court system declaring school districts change from "dual" to "unitary" in status. This means that districts are no longer segregated in any part of the school system. With desegregation programs being dismantled, schools have become more segregated within the district (Clotfelter, 2004; Gamoran & An, 2005; Orfield, 2001).

The *Coleman Report* included several areas of concern for educators throughout the nation. The most controversial piece to this body of research was the conclusion that resources did not have a major effect on educational outcomes if family background was

controlled. Using an input-output model, also called an education production function, Coleman (1966) and his team of researchers examined student indicators of learning. This model measured proportions of variance in student achievement that could be enhanced by school facilities, school curriculum, teacher qualities, teacher attitudes, and student body characteristics. Of all these factors, student body characteristics carried the strongest weight in verbal achievement, with teacher qualities the second strongest (Coleman, 1966; Gamoran & Long, 2006). Two years following the Coleman study, Harvard researchers reported the most important finding of the *Coleman Report* was the small amount of variation in the resources for black and white schools. The minimal variation constrains the power to which resources can employ differences of achievement among black and white students, thus, strengthening Coleman's argument of family background enhancing student performance (Mosteller & Moynihan, 1972).

Some educators and researchers were offended by this research and felt Coleman was saying that school did not make a major difference in the education of students. At the hearing for the Effective Schools Development in Education Act of 1985, Dr. Herman Meyer spoke to the committee (House of Representatives, 1986). In 1983, with the support of the State of Vermont, Dr. Meyer researched school effectiveness throughout the state in poor, rural schools. They interviewed teachers, and achievement data also was disaggregated by ethnic background, social class, and sex to determine whether the students had an equal chance of achieving mastery of skills in each area. For more than three years, the research delved into the equality of many areas, even the differentiation of students who were right-handed to those who were-left handed. If a school was seen to have areas of inequality, a plan was established to correct it. The final step was an

evaluation piece to analyze whether the school made a difference in the ability of the student. This also was done through interviews and review of data. The findings were poignant and clear that schools do have a major, positive effect on the ability of students and future (adult life) success. Dr. Meyer stated that, when identifying effective schools, researchers must not be allowed to avoid the process of disaggregating student outcome data by social class and sex. Dr. Meyer also pointed out the importance of all stakeholders playing an equal role in school improvement and effectiveness. No one group -- administrators, teachers, unions, or boards -- should have total control of the process. The role of higher education also was a major part of the Effectiveness Act in the area of teacher preparation (House of Representatives, 1986).

School Effectiveness in Kentucky

Three years before H.R. 747, the National Commission on Excellence in Education issued a report, *A Nation at Risk*, which negatively scrutinized public education. This engaged politicians to study school effectiveness within the state of Kentucky. Although research supports the conclusion that legislation mandating higher standards does not cause improvement of education systems (Glickman, Gordon, & Ross-Gordon, 2007), Kentucky quickly issued legislation to better the educational setting of the state. This came in the form of the Kentucky Education Reform Act (KERA) of 1990, touted throughout the country as the most comprehensive education package ever passed by legislation (Steffy, 1993). KERA included nine key initiatives: (1) provide resources equitably across all school districts, (2) provide resources to districts with large numbers of disadvantaged children, (3) eliminate political favoritism, (4) set high standards for everyone involved in public education, (5) provide a technology support network, (6)

empower local schools to make their own decisions to support education efforts, (7) hold schools accountable to set standards, (8) reward successful schools, and (9) assist unsuccessful schools (Kentucky Department of Education [KDE], 2000).

KERA also brought about a change in the philosophy of educational leadership. Leaders had to closely follow statutes and regulations adopted in the Kentucky General Assembly. The Education Professional Standards Board stated that school leaders were now held accountable to the assessments and guidelines of the Interstate School Leader Licensure Consortium Standards (Appendix A). Last, they were held to one of the strongest components of school effectiveness within the state, the Kentucky Standards and Indicators of School Improvement (Appendix B) as adopted by the Kentucky Board of Education (Ennis, 2007; KDE, 2005).

The state of Kentucky has worked diligently to improve the effectiveness of schools throughout the state. The mission for school improvement states:

The Kentucky Department of Education's mission and the mission of the Office of Next Generation Schools and Districts is to prepare all Kentucky students for next-generation learning, work and citizenship by engaging schools, districts, families and communities through excellent leadership, service and support.

(KDE, 2012)

Kentucky continues to push toward school effectiveness. Senate Bill 1 (2009) was passed to reduce college remediation rates of recent high school graduates by at least 50% by 2014. It also focused on creating more students ready for the workforce and to increase the college completion rates of students enrolled in one or more remedial classes by 3% annually from 2009 to 2014 (KDE, 2011).

PBIS

School-wide PBIS works to reduce discipline referrals. In over 9,000 schools in the United States, PBIS is implemented with the sole purpose of addressing negative, disruptive behavior problems with which many schools have struggled for years. This is done by teaching schools and teachers behavioral, social learning, and organizational behavioral principles (PBIS, 2012). The goal of PBIS is to create positive change in school environments by developing improved systems and procedures that promote positive change in student behavior. This goal is achieved by teaching the staff more appropriate strategies to address negative behaviors than was done in the past. Bradshaw et al. (2008) used data from a five-year longitudinal study of PBIS conducted in 37 elementary schools across five large districts to appraise the impact of training in PBIS on implementation fidelity as well as student suspensions, office discipline referrals, and academic achievement. To measure fidelity of school-wide PBIS, the researchers in this study used the School-wide Evaluation Tool (SET) created by the developers of PBIS (Sugai, Lewis-Palmer, Todd, & Horner, 2001). The study compared schools with and without formal PBIS training. The research, completed through a school-level longitudinal analysis, indicated that the schools trained in PBIS that also implemented the model with high fidelity experienced significant reductions in student suspensions and office discipline referrals within the first two years of implementation (Bradshaw et al., 2008). However, the developers of PBIS have conjectured that it takes three to five years to implement this model (Sugai & Horner, 2008).

Horner et al. (2009) conducted a study of the effectiveness of school-wide positive behavior support focusing on four research questions: (a) fidelity of SWPBS primary prevention practices used within elementary schools, (b) improved levels of

perceived safety in the schools, (c) reduced levels of reported ODRs, and (d) proportion of third graders who meet or exceed the state reading achievement standard (Horner et al., 2009). The research was conducted in Hawaii and in Illinois in elementary schools between the years of 2002 and 2006; participants underwent an effectiveness analysis. A very stringent criterion was developed for acceptance into the study: the assurance that all staff members would go through the trainings. During the process, many schools dropped out of the research. The study took place over a 3-year period, with 23 schools in the control/delay group and 30 in the treatment group. The average number of students in the control/delay group was 547.8 per school, for approximately 16,434 students. The average number of students in the treatment group was 440.3 per school, for approximately 13,209 students. To reduce bias, the researcher used data analysis of all originally participating schools. The research of Horner et al. (2009) found that school-wide PBIS has the potential to increase students' social competency and academic achievement, as well as the amount of time and resources needed to deal with misbehavior. Results documented that the training and technical assistance were functionally related to improving the implementation of universal-level PBIS practices.

The KYCID is the PBIS training provider for the state of Kentucky, with the mission statement "To train and support schools in the implementation of positive, proactive and instructional strategies so students become self-disciplined, responsible and productive citizens of the Commonwealth" (KYCID, 2011a, p.1). Seven correlates of effective schools guide KYCID: clear school mission, frequent monitoring, home/school relations, high expectations, instructional leadership, opportunity to learn/time on task, and safe and orderly environment. These seven areas are strategies utilized by KYCID to better prepare each teacher for academic success and behavioral management. The goal is also

to create a shift in thinking from addressing the problem to planning for a solution before the problem occurs.(Table 1).

Table 1

KYCID Shift in Thinking

From:	To:
Focus on reactive	Focus on proactive
Focus on negative	Focus on positive
Focus on punishment	Focus on instruction
Focus on deficits	Focus on strength
Focus on problems	Focus on needs
Professional centered	Child/family centered
Expert model	Team approach

www.kycid.org

These areas within the *Shift in Thinking* allow barriers and prejudices to be removed and to restore a focus on success of the child, often missing in situations where behavior directly comes with a punishment (KYCID, 2011b). When parents send their children to school, they expect them to be treated fairly and equally. We must stress that the discipline received by the students meets those standards throughout the school and in the classrooms.

PBIS and School Culture

One of the outcomes of PBIS when implemented correctly with fidelity is an improved classroom and school culture and/or climate (Lewis & Sugai, 2008). School culture is the foundation for successful school improvement (Saphier & King, 1985). Kentucky has been a major promoter of school improvement initiatives, one being the

Standards and Indicators for School Improvement (KDE, 2011b). Standard 4, Learning Environment--School Culture, looks at 11 areas considered vital by the state of Kentucky for a positive school culture in Kentucky public schools (Appendix B).

Marzano, Waters, and McNulty (2005) clarify that it doesn't matter how we explain or define culture in our schools; the culture's existence in our buildings is a natural by-product of how people choose to work together. Bolman and Deal (2003) take it a step further and describe culture as a product and a process. They state that culture is a product because it has been produced by those previously in the organization, but it also is a process because it is constantly being renewed, energized, and recreated by the new members as they buy in to what is taking place and add new ideas or initiatives into the environment.

Deal and Kennedy (1999) wrote, "School cultures are complex webs of traditions and rituals that have been built up over time as teachers, students, parents, and administrators work together and deal with crises and accomplishments. Cultural patterns are highly enduring, have a powerful impact on performance, and shape the ways people think, act and feel" (p. 4). With PBIS, school-wide patterns are created that unify the entire building such as unified rules, common vocabulary, consistent rules and consequences, and consistent rewards and celebrations (Mass-Galloway et al., 2008).

Barth (1990) addresses the reciprocal approach to learning within school culture. Four assumptions are proposed that could benefit school improvement: (1) Schools have the capacity to improve themselves, if the conditions are right; (2) Adults and students alike learn, and each energizes and contributes to the learning of the other; (3) What needs to be improved about schools is their culture, the quality of interpersonal

relationships, and the nature and quality of learning experiences; and (4) School improvement is an effort to determine and provide conditions under which the adults and students will promote and sustain growth among themselves. “Taking these assumptions seriously leads to some fresh thinking about the culture of schools and about what people do in them” (p. 45). PBIS provides feedback on the four assumptions and statistical accountability through data. With constant self-reflection and data to observe the strengths and weaknesses of the culture, accountability is consistent for all students and teachers involved. With the use of the School-Wide Information System (SWIS), a data source used by PBIS schools, data can be seen on a day-to-day, month-to-month, or year-to-year basis. Student attendance, disciplinary referrals and actions, and locations of infractions are all visible with PBIS data. Horner et al. (2009) established within their research that, if sample groups were available for the instruction and feedback process of PBIS, they could no longer continue as participants. These rules were pertinent to assure learning occurred between adults and students and the students were afforded the appropriate information (Horner et al., 2009). Shared learning of the same information between groups connects the interpersonal vocabulary and relationships. Furthermore, the development of the teacher was an assurance that the instruction the students received was the same throughout the building.

PBIS and Poverty

The deficits were significant relative to students in poverty compared to students from middle- to upper-class homes. A high correlation is present between poverty and academic success. Failing rates were much higher for students from low economic status, 63% to 85% higher than those from middle- to upper-class homes (Marzano, 2004).

Welfare children experienced 500 affirmatives and 1,100 prohibitions per week, while working class children experienced 1,200 affirmatives and 700 prohibitions per week (Hart & Risley, 1995). Children from families in poverty exhibited about 70% of the vocabulary of the same aged children in working-class families and 45% of the vocabulary of children from professional families (Losen, 2002). In a study using a panel of over 6,000 children matched to their mothers from National Longitudinal Survey of Youth datasets, results implied that, for every \$1,000 increase in income, math test scores were raised by 2.1% and reading test scores by 3.6% (Dahl & Lochner, 2008). Data continues to show the drastic educational differences between students in poverty and those who are not.

Poverty also is linked to poor attendance in school. NCES (2006) found that children in poverty are 25% more likely to miss three or more days of school per month than a student not living in poverty. Teen mothers are a demographic closely related to childhood poverty. Children born to teenage unmarried mothers are more likely to be chronically absent from early elementary school (Romero & Young-Sun, 2008). Students in poverty are more likely to change schools within the school year (Hanushek, Kain, Markman, & Rivkin, 2001). Obviously, homeless children are more likely to be absent from school more frequently than students with a stable home environment (Rafferty, 1995). Clearly, poor or socioeconomically distressed children are more likely to have concerns in the area of school attendance. PBIS allows individuals to know how often a student is absent and to address those issues directly.

Behavioral differences also are found between students in poverty and those from middle class (or above) homes. Behavior research indicates that children from homes of

poverty develop psychiatric disturbances and maladaptive social functioning at a greater rate than their affluent counterparts (McCoy, Firck, Loney, & Ellis, 1999). Added to this concern is the fact that low-SES children are more likely to exhibit social conduct problems, as rated by both teachers and peers over a period of four years (Dodge, Pettit, & Bates, 1994). Further concerns surfaced relative to negative emotionality and maternal support, in that low-income parents were less able to adjust their parenting skills to the demands of higher-needs children (Paulussen-Hoogeboom, Stams, Hermanns, & Peetsma, 2008), creating further behavior problems within academic settings for students from impoverished homes.

Poverty causes many educational, social, and emotional concerns, which should serve the education system in understanding the diversity of students in the same way one might understand English-limited learners or those from different countries of origin (Nieto & Bode, 2008). Poverty does not remove the intellectual ability or behavioral understanding of an individual. Posny (2009) states that the greater tragedy is not in being labeled as a student less than another, but in being treated as one. Teachers may have to work in environments drastically different from those in which they were raised. Many educators with upper- to middle-class upbringings are finding employment in high-minority, low-SES communities. When one has not grown up in these environments, it is more difficult to relate without building relationships and attaining cultural knowledge (Paley, 1989). Lewis (1971) understood that poverty has its own culture, and certain behavioral and attitudinal patterns evolve to help residents cope with the immediate challenges of adversity. Payne (1996) suggests that children from high, middle, and low social classes follow certain hidden rules that help them cope with their daily needs.

According to Payne, the education system adheres to a script (hidden rules) that supports the high and middle classes, but impoverished individuals are not aware of these codes.

The tiered instruction of PBIS addresses the consistency of how students are treated and the awareness of information given. Primary prevention focuses on school and classroom-wide instruction for all students, staff, and settings (PBIS, 2012). Consistently teaching and modeling PBIS throughout the school assures that all students are held accountable to the same rules and vocabulary. This focus on teaching appropriate behavior and rewarding students for following rules establishes a climate in which appropriate behavior is the norm, and it allows for more time to focus on the instruction of those students who may have entered school with less vocabulary and weaker emotional and social skills (Davis, 2011). PBIS helps ensure a student's poor academic performance is not due to poor instruction, and problem behavior is not due to lack of expectations, as data are collected and closely linked to interventions for both areas (Posny, 2009). Beegle (2009) crafted a list of best practices for educating students from generational poverty. Several of the items correlate with the implementation of PBIS such as the following: high expectations; the use of different forms of motivation; meaningful assessment; established relationships; mentor programs; succinct expectations for staff, teachers, and administrators; and training and evaluation for the educator (Beegle, 2009; Sailor, Dunlap, Sugai, & Horner, 2006).

Overrepresentation

A major concern of equality in education is the area of overrepresentation. This occurs when students from a particular category (race, ethnicity, sex, age, or disability) are placed within an isolated group without proper diagnosis or assessment.

Overrepresentation can be seen and identified in areas such as special education, suspensions, and expulsion. Dunn (1968) recognized that overrepresentation was becoming a disturbing trend in special education and connected efficacy research in special education with concerns of ethics and equity in general and special education. Dunn was troubled with growing reliance on segregation in special education. During the Civil Rights Movement in the U.S., Dunn compared the impact of segregation of minority children to that of children with disabilities. To further validate his statement, he referred to thousands of minority students who had been identified as disabled erroneously, which further segregated them from the general population (Franklin, 1994). Dunn felt the great amount of misidentification was due to the inappropriate use of intelligence testing and estimated that 60-80% of those were from what he referred to as low status backgrounds (Trent, 1994). The concerns of overrepresentation are still pertinent today. While black students account for only 16% of the U.S. student population, they represent nearly a third (32%) of all students in programs for mild mental retardation (Robertson, Kushner, Starks, & Drescher, 1994). A study conducted by Frankenberg and Lee (2002) of the Harvard Civil Rights Project found that black students are three times more likely to be labeled as mentally retarded than their white counterparts (Losen & Orfield, 2002). The same concerns with overrepresentation are carrying over to suspension and expulsion.

According to the USDE (2011), black students are 2.6 times more likely to be suspended than white students. One study found that black students are punished more severely for lesser offenses such as disrespect, excessive noise, threat or loitering than white students within the same schools (Skiba, Michael, & Nardo, 2000). A white

student in Bell County, Kentucky, was dared by friends to fight a black male. He called the black man a “nigger” and punched him. Even though the white student initiated the fight and made a very derogatory comment, the black student was suspended for two weeks while the white student was suspended for only one. The rationale was that the white student attempted to stop fighting but the black student continued to fight despite break-up attempts (Johnson, Boyden & Pittz, 2002).

This issue is addressed by race and also by socioeconomic standing. Studies have consistently shown disproportionality in SES throughout the country. Students who receive free school lunch are at a substantially higher risk for school suspension (Skiba et al., 1997). Wu, Pink, Crain, and Moles (1982) recognized through their research that students whose fathers did not have full-time jobs were significantly more likely to be suspended than those whose fathers were employed full time. Students are very well aware of these biases, which is unfortunate.

Brantlinger (1991) completed a qualitative study of students’ reactions to school discipline. In his research, he interviewed students from high- and low-income residential areas relative to their school climate and school discipline. Both low- and high-income adolescents agreed that low-income students were more likely to be unfairly targeted by school disciplinary sanctions. The punishment also was based upon SES rather than the act. Students of high- and moderate- income residences received mild to moderate consequences; low-income students reported receiving more severe consequences, often delivered in a very unprofessional manner.

The statistics relating school discipline to future imprisonment are now referred to as the “School to Prison Pipeline.” The thought of education as the deciding factor for

students and their future within the justice system is scary, but also credible through research data. In Pennsylvania, the number of school-based arrests has tripled in seven years. The state of Florida experienced more than 21,000 arrests and Department of Juvenile Justice referrals in 2007-2008, with 68% being misdemeanor offenses (Lochner & Moretti, 2004). Our current U.S. Secretary of Education Arne Duncan was once the Chief Executive Officer for Chicago Public Schools. Under his leadership, the number of out-of-school suspensions district-wide in Chicago quadrupled in a six-year period. Within five years, the number of expulsions in the state of Texas (2007-2008) increased by 23%, and the number of out-of-school suspensions increased by 43% in one year (Advancement Project, 2010). Students who battle discipline problems in school are more likely to drop out. Those who drop out are three times more likely to be incarcerated.

A mathematical model suggests that high diversity of achievement and a large number of students in a school will cause it to be more likely to group (Vander-Hart, 2006). Some schools may choose to use ability grouping to segregate students by race or class within a school. Their defense is that they use this form of grouping to help tailor lessons based on the ability of the learner (Vander-Hart, 2006). Unfortunately, due to the high number of minorities in these areas and the basis for which schools are choosing to group students (SES being one), these students are overrepresented in grouping below level (Guiton & Oakes, 1995). Students without records or from transient communities often are placed based on the expectation of the teachers and administrators. Similar predetermined expectations based on race within school systems are a form of “institutional racism,” seen as a form of segregation (Oakes, Wells, Jones, & Datnow,

1997). Once students are placed in these lower level classrooms, they tend to have less-qualified teachers, a less-challenging curriculum, and few opportunities to advance into higher level groups (Song, 2006).

On June, 12, 2012, the researcher was able to speak with Dr. Robert Horner, co-creator of PBIS, about overrepresentation and disproportionality in education. Although Dr. Horner has observed many people disgruntled about disproportionality, he has seen a few who are looking for answers to correct the problem. In research gathered from PBIS initiatives, Dr. Horner found three common keys to addressing disproportionality. First, a common community must be built where children can be successful. If this community is not established, any other attempts will be ineffective. Second, he noted that disproportionality in discipline is not a single phenomenon. Educators need to incorporate the same tools used by Functional Behavioral Assessments (FBA) to address disproportionality. In some cases, the child may behave in a way that he or she feels is fine, but the teacher disagrees. The child is not trying to be disrespectful, but the teacher perceives disrespect. Dr. Horner indicates this is a teaching problem. The strength of PBIS is not only about teaching the student, but it is more so about teaching the adult. Cases exist where students come from extremely tough backgrounds. They have learned behaviors to survive that do not work in a school setting. The student realizes these behaviors are inappropriate but is unaware of an alternative. For these students, educators have to re-teach the correct way, which can be more difficult than initial instruction. Dr. Horner points out the difference between teaching something to children who don't know, as opposed to unlearning something they already know. The act needs to be separated from the location. The child needs to be told that what is done in other places

needs to stay in other places--this is not how we behave here. Children are expected to behave differently in different locations. That doesn't mean the child should be told that what is done at home is wrong or inappropriate. It means only that the child is told how to behave here. Third, there are some situations where the adults are already biased. Dr. Horner was clear that individuals have a right to feel a particular way. A person's personal bias is his or her own. A person does not have the right to tell another person how to behave. However, an awareness of the organization's policies is needed. Individuals do not have the option to behave in a way that is against the organization's policy. Overrepresentation has become a national issue. It is no longer an issue of only one district or school (R. Horner, personal communication, June 12, 2012).

Summary

This review of literature shared information on effective schools and PBIS. The reference literature reviewed how the culture of a school can be affected by PBIS. Research also established the effectiveness of PBIS in low-income schools. Studies were examined that discussed overrepresentation within the school setting. To further examine the effects of PBIS, the researcher will investigate data from a low-income elementary school to establish whether PBIS has had a positive effect on discipline referrals and school attendance.

CHAPTER III: METHODOLOGY

Introduction

This chapter describes the methodology and procedures used to analyze the effects of positive behavior interventions and support on discipline referrals and attendance. The researcher will use information from a school that has integrated PBIS to answer the following questions:

1. What effect do positive behavior interventions and support have on the number of in-school student discipline referrals?
2. What effect do positive behavioral interventions and support have on attendance?

Although studies throughout this body of research refer to work where discipline referrals were reported and documented for data collection, none of the researched populations had a student body census similar to that of the school used in this research. Also, the other studies did not use attendance as an additional variable in their research. This chapter will introduce the proposed research in segments, define the demographics and population of the school being discussed, describe the data source of the research, and discuss the design of the research and how the data will be analyzed.

Demographics and Population

The elementary school being researched within this study is located in southwest Kentucky in a small city with a population of 25,024 and an estimated per capita income of \$20,028 (United States Census Bureau, 2011). The current racial makeup of the city is 71% white, 23.7% black, and roughly 5% other races. The school in this study has 448 students (570 if Head Start is included in census), of which 94% are black and 97% free-

reduced lunch (Infinite Campus, 2012). There is a communal reason for the racial composition of the school within this study.

In July of 1938, the local housing authority evolved from the U.S. Housing Act of 1937 (Federal Housing Authority, 2011). In 1955 the housing authority received additional federal funding to build other complexes throughout the city. In turn, many of the residents from larger surrounding areas within 200 miles (Nashville, Memphis, St. Louis), along with minorities looking for opportunities to better themselves and their families, moved into these housing facilities. By 1980 11 housing authority complexes were present in a city of only 20 square miles. The population in this particular city has declined by approximately 15,000 since 1970, which is common for city areas as families choose to move to more suburban communities. Yet, it is uncommon for a third of the population to move out of the city limits (El Nasser, 2011). Although the population has declined, the housing authorities still remain full, with a waiting list for occupancy. Of the 2,760 students within this school district, over 700 live in a residence managed by the local housing authority. In order to live within the Federal Housing Authority system, one's income must be below poverty level (Federal Housing Authority, 2011). The city in this study where the school is noted for having the largest Habitat for Humanity home population per capita in the state of Kentucky (Habitat for Humanity, 2011). The school under review services 80% of the housing authorities in the city area, also indicating a major demographic difference from the other elementary schools in the district.

Data Source

In 2007 the school intensively integrated KYCID independently from the district. The goal of the program is to create a systematic, data-driven environment that enables

students and teachers to have a central focus of daily expectations and remove behavioral concerns, allowing students and teachers the ability to focus on individual academic success. In becoming a PBIS/KYCID school, one of the most vital parts of the program is the School-Wide Information System (SWIS) data entry. SWIS is an online program that allows PBIS schools to enter the school data based on discipline referrals. The school in this study maintained a year-by-year database of information and is able to track the number of referrals written during a school year, the individuals writing the referrals, and the types/severity of the referrals.

In 2008 the Kentucky Department of Education recognized the advantages of establishing a data management system uniform from state level to the smallest district. “KDE wanted ready access to current and historic information, reliable and consistent data input from districts and real-time state and federal reporting capability. Infinite Campus, through its web-based Infinite Campus State Edition (ICSE), provides KDE with the functionality of vertical interoperability, real-time state reporting, and customized formats for federal reporting” (Infinite Campus, 2010). Infinite Campus will be used to pull six years of yearly attendance averages as well as discipline referral information.

Description of the Data

The research in this study is a quantitative analysis of secondary data from two separate sources: Infinite Campus and SWIS. The data regarding the number of referrals and attendance information from the elementary school in this study was gleaned from reports by Infinite Campus, a statewide, online database that maintains student discipline,

special needs, and attendance information. SWIS databank also was used to compare the last six years of discipline referrals.

Research Design

This study used Hansen's 2005 Typology of Evaluation Models. Both Research Questions 1 and 2 address Hansen's outcome, as they are both comparative in nature and based on data. Both Research Questions 1 and 2 also are formative for the researcher because of his status as a stakeholder in the implementation of the program.

This model also used a quasi-experimental design based on the research of Cook and Campbell (1979), which enabled this researcher to trust data that may be based on estimates of effects between one or more groups. The school under review had a distinguishable population that is extremely difficult to find or replicate in other settings. This design allows for data comparison within the same organization over time. The data was examined over a six-year span to evaluate the areas of growth in yearly numbers for discipline referrals and yearly attendance averages. Each area spans the last six years, with the first (2006-2007) reflecting data before the implementation of the KYCID/PBIS program. Finally, in reviewing the epistemology grid to consider approaches of formal program evaluation, Cook's Model of Postpositivism (1979) directly relates to the quantitative questions of both Research Question 1 and 2 in relation to policy enlightenment, accountability, and efficiency.

Data Analysis

The indicator for Research Question 1 is student behavior, which can be measured through discipline referral rates. The indicator for Research Question 2 is student attendance, which can be measured through yearly attendance rates. All schools within

the state of Kentucky submit student discipline data and attendance reports to Infinite Campus as part of the Kentucky Center for School Safety data collection and the Kentucky Department of Education. This database tracks the number and type of discipline referrals for every student within the state in a public institution. Infinite Campus also monitors all attendance data for state and local truancy regulations, as stated in State Law 702 KAR 7:125. Both research questions utilize a quantitative research design of a quasi-experimental nature since randomization is not possible. The data collected allowed participants within the program under review to compare the data over a six-year period within the school. The timeline is from August 2006 to May 2012. The SWIS data was gathered from the past six years, indicating the number of discipline referrals and the trends of the referrals over time.

Descriptive statistics provided the basic information needed for the analysis of data for both Research Questions 1 and 2 (percentage, mean, and standard deviation). A one-way analysis of variance (ANOVA) between subjects was used to compare the effects of (a) PBIS on discipline referrals, and (b) PBIS on daily attendance in an elementary school in southwest Kentucky in the school years ranging from 2006 to 2012. The study used a one-way ANOVA for each question. A question of using repeated measures ANOVA could be established. However, repeated measures ANOVA would be useful if the researcher was analyzing each group, with each individual year independently. Instead, the researcher studied the effect of PBIS over the six-year span of time collectively for each research question. The use of a one-way ANOVA was acceptable, since each question contained only one independent variable and more than two means. In both

Research Questions 1 and 2 the researcher used six means, noting each year of data. The dependent variable in Question 1 was discipline referrals; attendance was the dependent variable in Question 2. The level of significance was set for Research Questions 1 and 2 at $p < .05$, indicating the probability that the sample means would have occurred due to chance was less than .05 (Wiersma & Jurs, 2009).

Summary

This chapter presented descriptions of the methodology and detailed descriptions of the measures utilized in the study. The data analysis procedure also was covered in this chapter.

CHAPTER IV: RESULTS

Introduction

The purpose of this research was to study the effects of positive behavior interventions and support (PBIS) on behavior referrals and student attendance. The school that was analyzed began a PBIS program six years ago through Kentucky Center for Instructional Discipline (KYCID). The goal of the PBIS implementation was to create a systematic, data-driven environment that enabled students and teachers to have a central focus of daily expectations and the removal of behavioral concerns, allowing the ability to focus on individual academic success. The program was implemented throughout the school with fidelity. Appropriate training and professional development was issued to the staff members of the school. The research questions are:

1. What effect do positive behavior interventions and support have on the number of in-school student discipline referrals?
2. What effect do positive behavioral interventions and support have on attendance?

Study Design

The elementary school in this research currently has 448 students, of which 94% are black and 97% free-reduced lunch (Infinite Campus, 2012). The investigation used secondary analysis of data collected through Infinite Campus and SWIS data sources. In Research Questions 1 and 2, descriptive statistics provided the information for the analysis of data (percentage, mean, deviation score, and standard deviation). Also, a one-way analysis of variance (ANOVA) between subjects was used to compare the effects of PBIS on (a) discipline referrals, and (b) daily attendance in an elementary school in southwest Kentucky in the school years ranging from 2006 to 2012.

Research Question 1

1. What effect do positive behavior interventions and support have on the number of in-school student discipline referrals?

Similar to many schools throughout the state and the country that adopt a new program, the elementary school in this study did not factor in the initial resistance or the time needed for teachers to receive appropriate training, everyday practice of the new discipline program from a classroom perspective, or a school-wide view. Initial referrals were slowly decreasing at the induction of the program. In 2007 the school had 374 referrals, with barely over 400 students. In 2008 no gains were made, and 441 discipline referrals were posted in the SWIS data bank. Fortunately, in 2009 a major decrease in the number of referrals was found. The discipline referrals dropped by 82, with an ending total of 359. In 2010 a dynamic drop of 25 in total referrals was recognized, for a total of 334. When the figures were released in 2011, the school staff and district leadership were astonished. The referral difference from 2010 to 2011 was a difference of 148, for a total of 186. By June of 2012 the school had only 173 total in-school discipline referrals (Table 2).

Table 2

Referrals by year-- Descriptive Statistics

Groups	Count	Sum	Average	Variance	STDEV
2006-07	9	344	38.2222	189.944	13.2514
2007-08	9	395	43.8889	303.611	16.4415
2008-09	9	322	35.7778	170.694	12.3239
2009-10	9	298	33.1111	170.111	12.3306
2010-11	9	169	18.7778	73.6944	8.11309
2011-12	9	161	17.8889	24.6111	5.03433

The average number of referrals ($n = 6$) for the school from 2006-2012 is 311.16 ($s = 108.04$). The school has seen a difference of 201 referrals between 2007 and 2012. A difference of 268 referrals between the highest year (2008) and the lowest year (2012) also was noted.

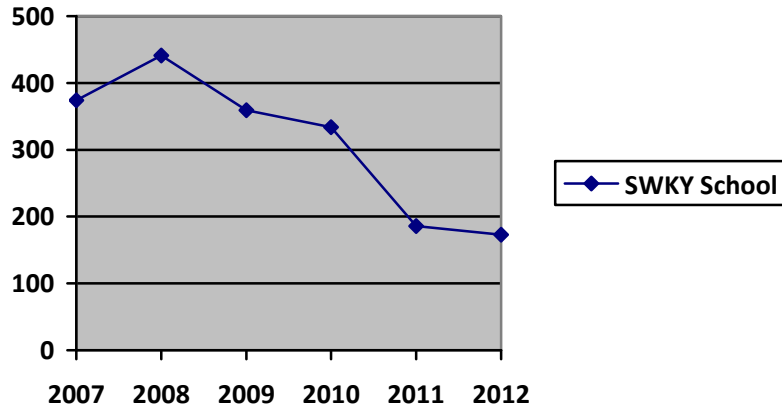


Figure 1. Graph of referrals per school year. This figure illustrates the number of referrals per year over a six-year span.

As shown in Appendix D, the top five problem areas listed by discipline referrals in 2007 were disrespect (115), disruption (62), physical aggression (46), minor disrespect (26), and forgery/theft (26). Five years later, the number of disrespect referrals was down to 21, disruption to 10, and physical aggression to 10. Minor disrespect was up to 73 referrals, and forgery/theft was down to 14.

Table 3

ANOVA for Referrals

Source of Variation	SS	df	MS	F	<i>p</i>	F crit
Between Groups	5097.5	5	1019.5	6.55861	0.0001	2.40851
Within Groups	7461.33	48	155.444			
Total	12558.8	53				

A one-way between subjects ANOVA was conducted to compare the effects of PBIS on discipline referrals in an elementary school in southwest Kentucky in the school years ranging from 2006 to 2012. The effect was significant at the $p < .05$ level for the six-year analysis, $F(5, 48) = 6.55, p = .0001$. The research supports the positive effect of PBIS on decreasing the amount of in-school discipline referrals within this elementary school over a six-year timespan.

Research Question 2

2. What effect do positive behavioral interventions and support have on attendance?

Similar to the results of Research Question 1, the attendance dropped after the initial induction of the PBIS program in the elementary school setting. In 2007 the school boasted a high attendance year, ending in a percentage of 96.652. With 98.06% being the highest, the school had four months of attendance over 97% throughout the school year ending in 2007. During the school year ending in 2008, the decline was smaller, but the school did not have one month of 97%. The end-of-year percentage for 2008 was 96.20. Although the school had no months with an attendance percentage rate over 97, eight out of ten months were over 96%, whereas the school had only six out of ten months over 96% in 2007. The lowest end of the year percentage for all five years occurred in 2009. The end-of-year attendance percentage for the school year ending in 2009 was 95.57. The following school year saw growth in the end-of-year attendance percentage. The percentage for the school year ending in 2010 was 95.87, indicating minor growth from 2009 to 2010. Through the fifth year, this school continued to show improvement on the previous two years. The year ending in 2011 experienced a high attendance month of 97.8%, the second highest monthly total since the first year of the study when the school

recorded a month at 98.06% during 2006-2007. Also, the school year ending in 2011 repeated five out of nine months with attendance over 96%. The end-of-year percentage for 2011 was 96.26. The final year of data saw the strongest results; the highest attendance in 2012 was 98.01%, with five out of nine months over 96%. No months were under 95%. With an average percentage of 96.34, down from 2012 indicated the attendance had continued to increase over the past three years.

Table 4

ADM by Year--Descriptive Statistics

Groups	Count	Sum	Average	Variance	STDEV
2006-07	9	870.76	96.7511	0.76101	0.88016
2007-08	9	868.06	96.4511	0.08066	0.82006
2008-09	9	860.17	95.5744	2.34325	1.53077
2009-10	9	862.91	95.8789	0.70526	0.8398
2010-11	9	866.41	96.2678	0.69469	0.83348
2011-12	9	867.06	96.34	0.64365	0.80228

A one-way between subjects ANOVA was conducted to compare the effects of PBIS on daily attendance in an elementary school in southwest Kentucky in the school years ranging from 2006 to 2012. Although the PBIS program was installed into the school in 2007, the research analyzes data beginning in 2006 to review the year prior to the installment of the program. The PBIS program was installed with fidelity with training provided by the Kentucky Center for Instructional Discipline (KYCID). The effect of PBIS on attendance was non-significant at the $p < .05$ level for the six-year analysis, $F(5, 48) = 1.82, p = .125$. The results of this research suggest that PBIS had no significant effect on student attendance. Although a trend of growth was seen in the last three years, the trend revealed no significant growth during the six-year span.

Table 5

ANOVA for ADM

Source of Variation	SS	df	MS	F	<i>p</i>	F crit
Between Groups	7.96264	5	1.59253	1.82751	0.12526	2.40851
Within Groups	41.8282	48	0.87142			
Total	49.7909	53				

In reviewing Appendix E, some slight trends are seen during the six-year span of attendance data, such as higher attendance averages in the first and fifth months.

However, no substantial trends would show consistent and significant growth due to the timeline of implementation of PBIS.

Summary

In this chapter the researcher presented quantitative results of the study regarding the effects of PBIS on discipline referrals and attendance. Descriptive statistics were presented to show the relationship between PBIS and its effects on discipline referrals. Although inflation in the number of referrals occurred from 2007 to 2008, 2009 saw a significant decrease of 82 referrals. The trend continued from 2009 to 2012. By the end of 2010-2011, referrals had decreased from 441 in 2007-2008 to 186 in 2010-2011, a reduction of 255, and 268 by the end of the 2012 school year. A one-way between subjects ANOVA established that the effect of PBIS was significant on discipline referrals at the $p < .05$ level for the six-year analysis, $F(5, 48) = 6.55$, $p = .0001$. The research supports the positive effect of PBIS on decreasing the amount of in-school discipline referrals within this elementary school over a six-year span of time.

Descriptive statistics also were gathered for the yearly attendance rate from 2006 to 2012. The data showed that, from the 2006 end-of-year percentage rate of 96.652 to

the 2012 end-of-year percentage rate of 96.34, very little change had occurred in the attendance over the six-year span. An ANOVA was completed with a p value of .125. Since the p value was not less than or equal to .05, the research revealed that PBIS had no significant effect on the attendance percentage in the elementary school used in this research between 2006 and 2012.

CHAPTER V: DISCUSSION AND CONCLUSIONS

Introduction

From coast to coast throughout the United States, schools are diligently attempting to guarantee each child within its reach receive effective, quality education in a safe and secure environment. In order for this to occur, over 7,000 schools throughout the country have followed the research of Dr. Robert Horner & Dr. George Sugai by implementing positive behavior interventions and support (PBIS) in their schools. The research in this study examined the effect of PBIS on discipline referrals and attendance in an elementary school located in southwest Kentucky. The study addressed the following research questions:

1. What effect do positive behavior interventions and support have on the number of in-school student discipline referrals?
2. What effect do positive behavioral interventions and support have on attendance?

This chapter reviews the study, discusses the conclusion for findings of each research question, and provides suggestions for further research. Finally, the chapter addresses social actions relevant to this study.

The Study in Brief

One compelling reason for this research is large amount of school districts across the nation with an overrepresentation of discipline referrals, suspensions, and expulsions of minority students. This finding has been documented countless times over the past three decades (Fenning & Rose, 2007). Research has investigated this from a perspective of black students (Gonzalez & Szecsy, 2004), children in poverty (Casella, 2003), and students who suffer with academic problems (Balfanz, 2003). This is a pressing issue on

a national scale of which educational leaders have been aware for years. It must be addressed before it becomes a social justice issue, which in some areas including Kentucky it is considered a civil rights issue. The nation has coined the term, “school to prison pipeline,” frequently used in educational settings. With programs in place similar to PBIS and state agencies such as the Kentucky Center for Instructional Discipline (KYCID), systematic discipline programs and procedures could be in place to directly affect and provide professional development to educators on a national scale. If educators are provided training on positive discipline strategies rather than relying on punishment, a new skill set would be created for directly dealing with and acknowledging unwanted behavior (Fenning & Rose, 2007). Overrepresentation of minorities in suspensions and expulsion is noted heavily through discipline referrals. This study focused the research on the effects of PBIS on discipline referrals.

Ransdell (2011) conducted a study of students from 250 schools in Broward County, Florida. The research revealed that poverty was the biggest predictor of a child’s to read in the Broward School District at large, and students in poverty statistically had the worst attendance within Broward County Schools. Ransdell’s research acknowledged attendance as a predictor of academic success. The effects of PBIS on attendance were addressed within this study.

Research Question 1

As stated in the results section of this document, descriptive statistics were used to investigate the relationship between PBIS and its effects on discipline referrals. Although inflation in the number of referrals was found from 2007 to 2008, 2009 experienced a significant decrease from 2008 of 82 referrals. The trend continued from 2009 to 2012.

The school in this study indicated a difference of 201 referrals between the 2007 and the 2012 totals. A difference of 268 was noted between the highest year (2008) and the lowest (2012). A one-way between subjects ANOVA established a significant effect from PBIS on discipline referrals at the $p < .05$ level for the six-year analysis, $F(5, 48) = 6.55$, $p = .0001$. The research supports the idea that PBIS had a positive effect on decreasing the amount of in-school discipline referrals within this elementary school over a six-year time span.

The result of answering Research Question 1 is a major accomplishment for the students and staff of the school within this study. However, if attention is paid to the drastic difference in the number of referrals in the 2006-2007 school year (344) compared to the 2007-2008 school year (395), concerns could be raised on why the referrals did not decline after PBIS was established in the school. The researcher believes there were several reasons for this outcome. First, the teachers applied the program with fidelity, holding students accountable during the year of implementation, which meant accurately addressing the behaviors. Second, students who were accustomed to the former system may have tested the limits to challenge the consistency of the program, resulting in more referrals being completed the year of implementation, 2007-2008. As the students who began in the PBIS system as kindergarten and first graders continued through the six-year study, the referrals lowered considerably. They were introduced to the expectations within the program from an earlier stage in their educational development, making the PBIS expectations second nature. Also, the number of major referrals, such as fighting and theft, were more than cut in half. In 2007 there were 64 referrals for fighting and less

than 10 in 2012. In 2007 the school reported nearly 30 thefts but less than 10 in 2012. The data shows a major change in behavior due to the expectation taught.

A growing body of evidence supports the association of PBIS with improvements in the behavior of students, as seen in the reduction of discipline referrals, suspensions, and expulsions (e.g., McCurdy, Manella, & Eldridge, 2003; Nelson, Martella, & Galand, 1998; Scott & Barrett, 2004; Todd, Haugen, Anderson, & Spriggs, 2002); school climate (Netzel & Eber, 2003); academic performance (Ervin, Schaughency, Goodman, McGlinchey, & Matthews, 2006); and instructional time (Horner, Sugai, Todd, & Lewis-Palmer, 2005). However, the dynamics of this elementary school's population are very different than many schools throughout the country. The school analyzed in this research has a student body that is 94% minority. The free/reduced lunch count is 97%. These two dynamics extend the research of PBIS to a particular setting unlike the majority of schools in the United States.

Research Question 2

As mentioned in the results section, descriptive statistics also were gathered for the end-of-year attendance rate from 2006 to 2012. The data revealed that, from the 2006 end-of-year attendance rate of 96.652% to the 2012 rate of 96.34%, very little change had taken place in the attendance over the six-year span. An ANOVA was completed with a p value of $p < .125$. Since the p value was not less than or equal to .05, the research indicated no significant effect of PBIS on the attendance percentage in the school.

The researcher believes many factors have influenced the results of this study. The range of the attendance percentage remained high throughout the six-year period. With an average percentage during this time span over 96%, the argument could be made

that there was limited room for growth. Community buy-in was established during the early years of this study, causing the growth of the level of influence to possibly hit a ceiling during the study, shrinking the room for continual growth of the attendance percentage.

Also noted in the school is the very high transient population. According to Infinite Campus data for this school (2012), nearly 10% of the population is listed as homeless, and another 15% has either transferred into the school at mid-year or returned from transferring out of the school at some point within the last school year. Students in poverty are more likely to change schools within the school year (Hanushek et al., 2001). Homeless children also are more likely to be absent from school more frequently than students with a stable home environment (Rafferty, 1995). In this research, the student population of 97% free/reduced lunch could exaggerate poor attendance by extrinsic factors outside of PBIS or the school's realm of influence. Clearly, poor or socioeconomically distressed children are more likely to have concerns in the area of school attendance.

A final argument that could be made to counter the results of Research Question 2 is the continual growth of the student body, particularly during the years of 2010-2012. At the end of 2011 grades K-5 had a total of 372 students and 448 at the end of 2012. The attendance records followed each student individually from school to school if they remained in Kentucky. Also, when students transfer to a different school, they are considered as absent at the former school until a records request is received. This process can take several days, if not weeks. All of these factors could create valid arguments on the lack of significant growth during the study.

Conclusion

Research Question 1 queried the effect of positive behavior interventions and support on the number of in-school student discipline referrals. A one-way between subjects ANOVA was conducted to compare the effects of PBIS on discipline referrals in an elementary school in southwest Kentucky in the school years ranging from 2006 to 2012. The PBIS effect on discipline referrals was significant at the $p < .05$ level for the six-year analysis, $F(5, 48) = 6.55, p = .0001$. The research supports the outcome that PBIS had a positive effect on decreasing the amount of in-school discipline referrals.

Research Question 2 queried the effect of positive behavior interventions and support on the number of in-school student discipline referrals. A one-way between subjects ANOVA was conducted to compare the effects of PBIS on daily attendance in an elementary school in southwest Kentucky in the school years ranging from 2006 to 2012. No significant effect was found relative to PBIS on attendance at the $p < .05$ level for the six-year analysis, $F(5, 48) = 1.82, p = .125$. The research suggests that PBIS did not significantly affect student attendance.

Suggestions for Further Research

The research questions focused strictly on the effect of PBIS on discipline referrals and attendance in an elementary school in southwest Kentucky. Of importance to the researcher and the school district was the result on whether the positive changes within the school were due to PBIS. However, many other effects were noted after the implementation of PBIS. The following recommendations are areas of possible research derived from completion of this study:

1. Using the school in the research study, measure the culture of the school that has implemented PBIS using the School Culture Triage Survey developed by Wagner and Magsden-Copas (2002). Furthermore, a more in-depth study could be conducted, whereby the culture of the PBIS school could be compared to other non-PBIS schools with similar student demographics.
2. Compare attitudes and satisfaction of parents of students in PBIS schools who have participated in a PBIS program for at least three years with the attitudes of parents with children at a non-PBIS school.
3. With district implementation of PBIS becoming more prevalent in schools throughout the country, the researcher would be interested in a study that tracks student referrals from grade 4 through 8, allowing data to support the transition from elementary school to middle school and the effectiveness of PBIS in schools implementing it with fidelity.
4. The researcher could analyze the number of referrals of the school in this study per grade level during the 2006-2012 timeline. For example, compare the kindergarten students in 2006 to the second-grade students in 2006 during the six years they were students at the school. Would a significant difference be found in the number of referrals per grade level? How would PBIS affect the referrals of students by grade level?
5. Using the school in this study, the researcher could analyze how PBIS affected the behaviors of the referrals from year to year during the 2006-2012 timeline. Was a decrease in major discipline problems present such as fighting, theft, or harassment? If so, to what extent?

6. Last, the researcher would be intrigued by a study of teacher satisfaction in PBIS schools compared to non-PBIS schools with similar demographics.

Social Action

During the last six years of implementation of the PBIS program at the school in this study, additional benefits have been experienced other than the dramatic decrease in discipline referrals. Lisa Gross, spokeswoman for KDE, stated in an article in the *Paducah Sun* newspaper that the school within this study scored extremely well on the 2011 CATS Test, Kentucky's previous state assessment. "Of the 612 schools that had the same number of goals as the school in the research, only four other schools in the state also had large enough populations of blacks to be held accountable for those students' performance," Gross said (Feldhaus, 2011, p.A6). Of those four schools, Gross indicated that only one other than the school in this research attained all ten NCLB goals.

The school within this study has excelled in assessment growth. The school was second in reading scores in their district in 2007, with 3.2 points separating them from the top school in the district. In 2011 the school was seven points ahead of the next closest competing school in the district. In 2007, the school also was second in math. The math score of the school in 2011 was ten points over the next closest school within the same district. In addition, a 20-point jump in science was seen over the five-year period (scores from 2011) of PBIS implementation.

Although this research directly links PBIS to its effects on referrals and attendance, PBIS impacts many areas of education. In Kentucky, PBIS is provided through a federal grant from KYCID, which is not a budgetary item for school districts but completely free in partner school districts. The only budget implications would be the

cost to release educators for a few days of training each year. By allowing those teachers to attend KYCID training, schools create a low-cost professional development, as those teachers who attended the training will return to the school and re-teach the entire faculty. The result of this professional development would be the creation of grade-level and building-wide discipline experts. Yet, the cost of the program is not the reason why the school in this study, or the other 9,000 plus schools across the country, is implementing PBIS. PBIS is utilized by the school in this study because it is a data-driven, statistically proven program having the strongest impact on behaviors observed by the current administrators throughout their entire careers in education. The overall focus from administration to teacher, teacher to student, and student to parent/community is extremely dynamic and empowering. PBIS provides schools with an option to try something different as well as a support team of over 9,000 schools from which to learn and model. The bottom line for change to occur is the will to do so. If one chooses to do the same thing over and over, they can generally expect to receive the same results. With proper implementation and training with fidelity, PBIS can provide the change a school and/or district may need, while enhancing the school environment in many ways with data and research to fully support it.

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APPENDIX A

Interstate School Leader Licensure Consortium Standards

A complete list of the indicators for each standard can be found on the KDE website or by consulting the Council of Chief State School Officers (KDE, 2011c).

Standard 1: A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.

Standard 2: A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.

Standard 3: A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

Standard 4: A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

Standard 5: A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness, and in an ethical manner.

Standard 6: A school administrator is an educational leader who promotes the

success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context (pp. 10-21).

APPENDIX B

Standards and Indicators for School Improvement

The *Standards and Indicators for School Improvement* represent the framework for school improvement in Kentucky. They are divided into three components: Academic Performance, Learning Environment, and Efficiency (KDE, 2003). There are nine standards that include from 5 to 16 indicators. The indicators are listed in *School Level Performance Descriptors for Kentucky's Standards and Indicators for School Improvement* (KDE 2004d).

Academic Performance

Standard 1 (Curriculum): The school develops and implements a curriculum that is rigorous, intentional, and aligned to state and local standards.

Standard 2 (Classroom Evaluation/Assessment): The school utilizes multiple evaluation and assessment strategies to continuously monitor and modify instruction to meet student needs and support proficient student work.

Standard 3 (Instruction): The school's instructional program actively engages all students by using effective, varied, and research-based practices to improve student academic performance standards.

Learning Environment

Standard 4 (School Culture): The school/district functions as an effective learning community and supports a climate conducive to performance excellence.

Standard 5 (Student, Family, and Community Support): The school/district works with families and community groups to remove barriers to learning in an effort to

meet the intellectual, social, career, and developmental needs of students.

Standard 6 (Professional Growth, Development, and Evaluation): The school/district provides research-based, results-driven professional development opportunities for staff and implements performance evaluation procedures in order to improve teaching and learning.

Efficiency

Standard 7 (Leadership): School/district instructional decisions focus on support for teaching and learning, organizational direction, high performance expectations, creating a learning culture, and developing leadership capacity.

Standard 8 (Organizational Structure and Resources): The organization of the school/district maximizes use of time, all available space, and other resources to maximize teaching and learning and support high student and staff performances.

Standard 9 (Comprehensive and Effective Planning): The school/district develops, implements, and evaluates a comprehensive school improvement plan that communicates a clear purpose, direction, and action plan focused on teaching and learning. (pp. 2-92)

APPENDIX C

IRB Approval



A LEADING AMERICAN UNIVERSITY WITH INTERNATIONAL REACH
OFFICE OF COMPLIANCE

DATE: February 15, 2012

TO: Gregory E. Ross, M.A., M.A., B.S.
FROM: Western Kentucky University (WKU) IRB

PROJECT TITLE: [309198-2] THE EFFECTS OF SCHOOL CULTURE ON ACCOUNTABILITY SCORES, DISCIPLINE REFERRALS, AND TEACHER SATISFACTION: A FIVE YEAR VIEW OF A HIGH-MINORITY, LOW INCOME ELEMENTARY SCHOOL

REFERENCE #: IRB12-189
SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVED
APPROVAL DATE: February 15, 2012

REVIEW TYPE: Exempt Review

Thank you for your submission of Amendment/Modification materials for this project. The Western Kentucky University (WKU) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Exempt Review based on the applicable federal regulation.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Paul Mooney at (270) 745-2129 or paul.mooney@wku.edu. Please include your project title and reference number in all correspondence with this committee.

