THE EFFECTS OF TEACHER KNOWLEDGE AND USE OF POSITIVE BEHAVIOR SUPPORT ON STUDENT ACADEMIC ACHIEVEMENT

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ABSTRACT

Discipline problems are the single greatest factor in decreasing time-on-task in the classroom and causing students to misbehave. Off-task behavior is a major concern for teachers as it negatively impacts learning. The purpose of this study is to investigate the effect of Positive Behavior Support (PBS) on the academic proficiency of students in second grade. The study analyzed the correlation between a teachers’ knowledge of PBS and their usage of PBS. It also analyzed if a relationship existed between a teachers’ use of PBS and student’s academic achievement in reading. The setting of this study was an elementary school in southeastern North Carolina. Teachers in this study were given a survey regarding their knowledge of PBS and its use in their classrooms. Student reading scores were then analyzed to determine if a correlation existed between the teacher’s knowledge and use of PBS and reading achievement. Results indicate educational and contextual factors such as years of experience, knowledge of the program, and attitude about PBS have no positive effect on students’ academic achievement in reading.
ACKNOWLEDGEMENTS

There are so many people who have helped me get to this point. Dr. Scott Imig, my thesis advisor, for your expertise and patience I am forever grateful. You have made this process so much easier. Thanks for putting up with me and my constant emails and worry.

To Mrs. Darden, my principal, thank you for allowing me to take time away from my classroom to complete this study. I hope in some way this will help improve your school. To my colleagues at Butler Avenue School, thank you for participating in this study when I know you really didn’t have time. I am blessed to work with such a wonderful group of people.

To my parents, who from a young age instilled in me the value of education and hard work. You always told me I could do and be anything I wanted. Thank you for all your love, support and always believing in me. Without you I would have never made it this far.

To my wonderful husband Richard, thank you for being so understanding and patient. You have tolerated our house staying a mess, lots of crock-pot suppers and lonely nights when I was at school. Thank you for pushing me to do this and believing in what I could become. I love you with all my heart.

Lastly, without my Lord and Savior Jesus Christ I would be nothing. As written in Philippians 4:13 “I can do everything through him who gives me strength.”
DEDICATION

I would like to dedicate this thesis to all of the students I have taught who needed a positive role model in their lives. I hope that I have been that person for you. You have taught me more than I ever taught you about how to love unselfishly. Thank you for being my inspiration in my career.
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CHAPTER 1: INTRODUCTION

Background

Discipline problems are the single greatest factor in decreasing time-on-task in the classroom and causing students to misbehave. Off task behavior is a major concern for teachers as it negatively impacts learning. Recurring inappropriate behavior has been shown to contribute to a students’ inability to learn socially acceptable, positive classroom behavior skills and is predictive of present and future academic success. Numerous research studies have looked at the link between student behavior and academic achievement. In a study by McIntosh, Flannery, Sugai, Braun, and Cochrane (2008) of student transitioning from middle school (grade eight) to high school (grade nine), results indicated significant interactions between academic scores and office discipline referrals, both within and across grades. The results of the study indicated that students with more discipline referrals had a lower GPA than those with one or less. In a recent Public Agenda poll 73 percent of parents agreed that the most pressing problem facing high schools in the local community was social problems and kids who misbehave (Reality Check, 2006). A similar poll taken by Gallup in 2008, found that social and behavioral problems were in the top five of parent’s biggest concerns for the public education system. (Gallup Poll, 2008).

The widespread effects of misbehaving students are felt by the entire school community. The teacher takes time away from instruction to reprimand the student, and in turn, the disruption by the teacher causes other students to become disengaged from tasks (Altwood, 2001.). This classroom disruption is a determining factor in teacher recruitment and retention. As a problem student’s behavior affects other students, it also has an effect on teacher turnover.

Research indicates that one of the top reasons for teachers leaving the profession is student misbehavior. In a study conducted by Butera, Gaicone and Wagner it was determined
that student discipline problems was one of the top three reasons for teacher turnover. “North
Carolina's local school systems reported an average teacher turnover rate of 12.95 percent for
2004-05, a slight increase from the 2003-04 turnover rate of 12.37 percent” (North Carolina
Department of Public Instruction, October 2005). It has been noted that classroom management
difficulties are the number one reason for teachers leaving the profession within the first five
years. Rancifer (1993) states that teachers who lack control in the classroom not only enjoy their
jobs less but also become less effective at teaching as the problem persists.

Teachers encounter a multitude of distractions, disruptions and general nuisances in the
classroom on a daily basis. Both parents and teachers have rated discipline as the chief problem
in the classroom. “As reported by Gallup Polls conducted by Phi Delta Kappa, from 1969 to
1985 the number one problem Americans had with public school education was the lack of
discipline (with the exception of one year)” (Allman and Milner, December 2006, p. 12). What
may be more interesting is the fact that when asked how to improve other problems in public
schools, Americans stated that there needed to be stricter rules, more control and more discipline.

“Classroom management strategies designed to improve problem behavior directly affect
student achievement “ (Valdiva, 2006, p.4). Countless behavior management plans have been
developed and implemented to address student misbehavior. One such plan is Positive Behavior
Support (PBS). PBS programs are a way to positively affect the learning environments in
schools in order to support high student performance and to reduce behavioral problems.
Positive Behavioral Support combines Safe School Plans, Character Education efforts and
strategies, and discipline efforts in order to make schools caring and safe communities for
learning. Whole School Positive Behavioral Support is a systematic approach that establishes
and reinforces clear behavioral expectations. It is a team-based system involving the entire
school staff using a systems approach. The school staff must adopt a common approach to
discipline that is proactive, instructional and outcome-based. There is an emphasis on
continuous, data-based improvement, individualized to each school. PBS lends itself well to
students with different learning styles and backgrounds. PBS is also an instructional approach
that focuses on systematically teaching social behavior using effective instructional methodology
(North Carolina Department of Public Instruction, 2008).

PBS incorporates a wide range of universal and individualized strategies developed for
use with all students to achieve important social and learning outcomes while concurrently
preventing problem behaviors. By altering the educational environment PBS is designed to
prevent problem behaviors while also teaching appropriate alternatives. “Recent research
indicates that school-wide positive behavior is associated with decreased exclusionary, reactive
and punitive discipline practices.” (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Luiselli,
Putnam, & Sunderland, 2002). Several other studies have indicated that by decreasing problem
behavior and increasing time spent on academic instruction, student achievement increases.
Research has consistently shown that the amount of time that instruction is provided is highly
correlated with student achievement (Brophy, 1988; Fisher, Berliner, Filby, Marliave, Cahen,
Dishaw, 1980). One study also showed that “high-achieving students in high schools were
academically engaged 75 percent of the time, compared to 51 percent for low-achieving
students” (Frederick, 1977). Many researchers and policy experts point to smaller class size as a
means to decreasing the incidence of classroom behavior problems. In North Carolina’s Success
Starts Small (Achilles, et al. 1994; Kiser-Kling, 1995) it was found that discipline referrals
among grade 1 pupils declined in small classes from 38 to 28 to 14 over the 3-year period. Yet
studies indicate that using PBS programs has a greater effect on achievement than smaller class sizes, and positive behavior also has other effects on students.

Purpose of the Study

This study serves two purposes: First, the research will attempt to determine if a relationship exists between a teacher’s knowledge of PBS and their use of the practices. Second, the researcher will analyze if teacher’s use of the PBS has a relationship to student academic achievement. Findings may indicate if positive behavior support programs and strategies should be taught to teachers through professional development and implemented by entire school systems.

Research Questions

The researcher proposes to study teacher’s knowledge and use of PBS to answer the following research questions:

1. What is the relationship between teachers’ knowledge of PBS and their usage of PBS?
2. What is the relationship between teachers’ use of PBS and student academic achievement?

Definition of Terms

For the purpose of this study, the researcher will apply the following terms and definitions:

Positive behavior support system: verbal, tangible, or written positive reinforcement used by a teacher, administrator or other faculty member within a school to teach and reward positive, desired behaviors.
**Classroom management:** a system of rules, procedures, consequences and rewards established by a teacher in their classroom. This system is taught, practiced and posted within the classroom. This system is usually not the same throughout the school.

**Heterogeneous grouping:** a method of grouping students with various learning abilities and academic levels for purposes of instruction.

**Elementary school:** a school containing grades kindergarten through five which promotes growth in academic, social and emotional areas.

**Problem behavior:** any behavior that takes away from the learning outcome of the classroom. This behavior not only affects the student performing it but others around them.

**Teacher attrition:** the percentage of teachers who leave the field of education annually.
CHAPTER 2: REVIEW OF LITERATURE

Two bodies of research lend themselves to this study. First, the research on student behavior and its relationship to academic achievement will be presented. Second, the growing body of research findings on positive behavior support and classroom management will be reviewed.

Today’s elementary school can loosely be defined as a school containing grades kindergarten through fifth which promotes growth in academic, social and emotional areas. Most elementary schools base themselves on the philosophy and idea that students have unique social, emotional, intellectual, and physical needs, and that these needs must be addressed in order to successfully transition students from home to the primary grades and into the upper grades. During this time, appropriate social behaviors are taught and learned. These positive behaviors have a direct impact on a student’s academic achievement (Sailor, Stowe, Turnbull, & Kleinhammer-Tramill, 2007). Although appropriate behaviors are taught and learned, in recent years, Gallup Polls have cited discipline as the second biggest concern parents have concerning their child’s school nationally (Phil Delta, Kappan, 2008). The poll also revealed that a lack of discipline is not seen as a problem in community schools.

Student Behavior and Academic Achievement

“A few principles describing the relationship between academic and behavior problems have become evident. This relationship appears to start as early as school entry: Kindergarten academic variables have been shown to predict problem behavior at the end of elementary school” (McIntosh, Horner, Chard, Dickey, & Braun, 2008, p. 1).” These problems then carry on into the upper grades. Problem behaviors and academics rarely exist in isolation. In a study conducted by Fleming, Harachi, Cortes, Abbott, & Catalano in 2004, students with early
difficulties in behavior are at greater risk for developing academic problems. Fleming, and his
colleagues studied the change in reading test scores and attention problems during middle
childhood, ages 8-12. They also examined whether change in these variables predicted later
problem behavior. The study consisted of 783 students from 10 Pacific Northwest schools. It was
reported that level and change factors for both variables were statistically significant predictors
of problem behavior in seventh grade. In a combined model that included growth factors for both
reading and attention problems, only the level of attention problems had a unique and
statistically significant association with problem behavior. This may indicate that many students
who are less attentive are more likely to engage in inappropriate behaviors.

Students who exhibit early difficulties with academics are at greater risk for developing
problems in social behavior (Dweck & Wortman, 1982; Hinshaw, 1992; McIntosh, Horner,
Chard, Boland, & Good, 2006; Morrison, Anthony, Storino, & Dillon, 2001). A study
conducted by McIntosh in 2006 looked at the interactions between reading skills and problem
behavior, and sought to determine the value of regular screening assessments in predicting which
students would not respond to school-wide behavior support in fifth grade. Results indicated that
both reading and behavior variables (including kindergarten reading variables) significantly
predicted the number of discipline referrals received in fifth grade.

Several other studies (Larsen, Steele & Sailor, in press; McIntosh, 2005; Tobin & Sugai,
1999) have found relationships between academic performance and problem behavior across
grade levels. Sugai and Tobin (1999) studied a randomly selected sample of 526 students.
Frequency in referrals for violence involving fighting in grade six, predicted similar referrals and
chronic discipline problems in later middle school. This behavior also predicted the frequency of
suspensions in grade nine. Students who received three or more suspensions in ninth grade
predicted school failure. Both boys and girls who were referred for fighting and harassing, as sixth graders, were not likely to be on track for graduation when in high school. Sugai and Tobin’s work indicates that students who have discipline trouble in the middle school are more likely to less academic success in high school (1999).

As a student’s academic skills do not keep pace with their peers, they are more likely to engage in negative behavioral activities. Studies have noted poor academic performance and problem behavior, in particular, as powerful predictors of high school dropout (Hale & Canter, 1998; Lehr et al., 2004; Sweeten, 2006; Tobin & Sugai, 1999). Not only does a student’s misbehavior affect their own academics, but it also has many negative effects on their peers.

Oppositional students resist following rules, argue with adults, use harsh language, and annoy others (Marzano & Marzano, 2003). These actions not only keep the misbehaving student off-task, but they also divert the attention of other students in the classroom leading to a multitude of distractions and a decrease in the teacher’s instructional time. Discipline problems are the single greatest factor in decreasing time on task in the classroom. When a student misbehaves, the teacher takes time away from instruction to reprimand the student and in turn the disruption by the teacher causes other students to become disengaged from tasks (Atwood, 2001). A 1979 study by Medley concluded that effective teachers at a primary level tended to be orderly and supportive, while ineffective teachers tended to rebuke and criticize students who exhibited disruptive behavior. These high rates of student misbehavior have been associated with low gains on achievement tests.

Student Behavior and Teacher Attrition

While student misbehavior is a concern of parents, the effect of student’s behavior on teachers is also a rising problem. North Carolina's local school systems reported an average
teacher turnover rate of 12.95 percent for 2004-05, a slight increase from the 2003-04 turnover rate of 12.37 percent (North Carolina Department of Public Instruction, 2008). North Carolina is not the only state that has a problem with teacher turnover. A study conducted by Ingersoll (2001) found that 42 percent of all departing teachers report job dissatisfaction, among other things, as their reason for leaving education. Among these teachers, 18 percent cited student discipline problems as the source of their job satisfaction. Findings also indicate that the majority of teacher attrition takes place in high-poverty, urban schools. Of those who depart these schools, a quarter or more report student discipline and lack of student motivation to be among their top five reasons. Brouwers (2000) reports that discipline problems in the classroom was the principle reason why teachers left the profession from 1995-1997.

In schools that provide more support from administrators and with lower levels of student discipline problems, turnover rates are distinctly lower (Ingersoll, 2001, p.20). A study conducted by Norton and Kelly (1997) found that one of the top five reasons for teachers leaving the profession were problems relating to student behavior and handling of student discipline. This study also reported that work conditions such as administrative leadership and support, school climate, teacher autonomy in the classroom, student behavior and parental support are directly associated with the job satisfaction of teachers.

**Positive Behavior Support Systems**

In the past, most schools have used a reactive, consequence-based approach to handling discipline problems. Research demonstrates, however, that discipline practices relying on punishment, containment, and exclusion do little to solve problems of school violence, disruption, or juvenile crime in the community (Brooks, Schiraldi, & Zeidenberg, 2000; Mendel, 2000). These consequence-based approaches are becoming a thing of the past and being replaced
by more pro-active methods such Positive Behavior Support (PBS). “School-wide positive behavior interventions and supports is a concept that creates an inclusive school environment, addressing all students’ behavioral challenges on a continuum of need (Siegel, 2008, p. 5).” PBS can also be defined as anything school personnel can do to help ensure student success. The primary management strategy of PBS is to be proactive. This is done by addressing any academic needs, teaching social and emotional skills, establishing and reinforcing clear rules, structuring routines and giving positive attention for desired behaviors. With PBS, teachers are to use active ignoring, redirection and praising desired behaviors as methods of fostering a sense of positivity in the school environment (Clinton City Schools, 2009).

Many places are now turning to PBS systems in order to change the climate of their schools. “Some California schools are striking a balance without compromising academic achievement goals. In fact, schools using Positive Action, a program that is foundational for each of the new basics, are finding that their students are not only learning for life, but exceeding their academic benchmarks as well” (Allred, 2008, p. 1). This increase in academic achievement is credited with a drop in discipline referrals and has led to a decrease in the high school drop-out rate. Several other studies have indicated that by decreasing problem behavior and increasing time spent on academic instruction, student achievement increases.

A study conducted by The Collaborative for Academic, Social and Emotional Learning (CASEL) produced findings that support this theory. “The study showed that students who participate in school-based programs that focus on social and emotional learning, compared to students who do not, improve significantly in terms of social and emotional skills; attitudes about themselves, others and school; social and classroom behavior; emotional distress such as stress,
anxiety and depression; achievement test scores (11 percentage points higher); and school grades” (Mirsky, 2008, p. 1).”

Studies also show that while all students benefit from positive behavior support plans, low performing students benefit the most. When implemented correctly there have been noteworthy improvements in classroom behavior in the areas of on-task behavior, quality work, and classroom engagement. In a January 2008 study conducted by Kobus, Maxwell and Provo, links between positive reinforcement and increases in achievement were found. The five-month study consisted of 80 third, fourth and eighth graders who were struggling with inadequate homework completion, lack of focus in the classroom, and low achievement test scores. Creative engagement, student self-assessment and positive reinforcement revealed minor, but positive changes in students’ attitude toward school. There were also note-worthy improvements in classroom on-task behavior, work quality and classroom engagement. In a similar study, Liddell, Norris and Zinanni (1999) found students showed improvement in their behavior and social skills after receiving positive reinforcement.

Positive Behavior Support:

Positive Behavior Support (PBS) is one type of positive reward system. It is a commercial system and it is widely used. Developed in the1980’s, PBS is a broad approach for organizing the physical, social, educational, biomedical, and logistical supports needed to achieve basic lifestyle goals while reducing problem behaviors that pose barriers to these goals (Dunlap, Sailor, Horner, & Sugai, 2009). PBS emphasizes a commitment to helping individuals (and their advocates) achieve a quality of life that is defined by their personal choices. PBS includes a multi-step process. “It incorporates progressively intense levels of intervention to
help educators to manage more effectively and address challenging behaviors” (McCurdy, Kunsch & Reibstein, 2007, p. 9).

Currently, nearly 8,000 school districts are in various stages of adopting PBS. This system is best utilized in a three-tier method. The first tier is the establishment of a universal support system. The goal of universal support systems is to improve the behavior of almost all students in the school, with a particular focus on those at the brink of more serious antisocial behaviors. The second tier of the three-tiered, school-wide model promotes the development of certain interventions to address the needs of those students who may exhibit behaviors that require more intense intervention. These interventions serve as another preventative measure for at-risk students. The third tier of the school-wide model is intended to address those students exhibiting the most serious and frequent patterns of antisocial behavior (McCurdy, Kunsch, & Reibstein, 2007 p. 1-2). To successfully implement PBS school-wide, Sugai and Horner (2002a) emphasize a multi-systems perspective requiring integration of four levels of implementation: (a) school-wide discipline, (b) classroom management, (c) non-classroom settings, and (d) individual students.

PBS includes proactive strategies for defining, teaching, and supporting appropriate student behaviors to create positive school environments. Instead of using a variety of individual behavioral management plans, a continuum of positive behavior support for all students within a school is implemented in areas including the classroom and non-classroom settings, such as hallways, buses, and restrooms (Center on Positive Behavioral Interventions and Supports, 2009). “Positive behavior support is an application of a behaviorally-based systems approach to enhance the capacity of schools, families, and communities to design effective environments that improve the link between research-validated practices and the environments in which teaching
and learning occurs (Center on Positive Behavioral Interventions and Supports, 2009)”. Rather than telling students what not to do, the school personnel will focus on the preferred behaviors and teach these to the students. Attention is focused on creating and sustaining school-wide, classroom, and individual systems of support that improve not only academics but the lifestyle of the student. This is accomplished by making targeted behaviors less effective, efficient, and relevant, and desired behavior more functional.

In order for this three-tiered process to work, each school employee must be trained and willing to help implement. “Consistency from class to class and adult to adult is very important for successful implementation (Center on Positive Behavioral Interventions and Supports, 2009)”. A matrix is then created to show what the behavioral expectations look, sound and feel like in all non-classroom areas. Once the matrix is completed and agreed upon by the staff, they then must decide how to teach these expected behaviors. After the method of teaching is finalized, the office discipline referral form is then examined and changed to fit the expectations of PBS. This is an important step in the implementation because consistency is important in the establishment of this program.

In addition to directly teaching behavioral expectations to students, a system is established for rewarding students who demonstrate these expectations. Teachers may award students with a positive behavior referral. In most cases this would be a ticket that notes the proper behavioral expectation demonstrated by the student. These tickets can then be redeemed for a drawing of prizes or other treat at the end of each week or grading period as determined by the school. Continued staff training in how to use PBS approaches for individual students is necessary in order to help staff understand the function of student behavior and its multiple determinants (Center on Positive Behavioral Intervention and Supports, 2009).
This particular model has been adopted by many school systems across the United States. Kanawha County (WV) School System, reported 250 discipline referrals in 2000-2001. Three years after implementing PBS, referrals decreased to 79 (Michigan Positive Behavior Support Network, 2005). Locally, Supply Elementary in Brunswick County (NC), began implementing PBS during the 2000-2001 school year. Over the next four years out of school suspensions were reduced by 80 percent and End Of Grade (EOG) test scores rose approximately 6.4 percent (North Carolina Department of Public Instruction, 2008). Schools that have completely implemented the program report up to a 60 percent reduction in school violence (Michigan Positive Behavior Support Network, 2005).

New Hampshire has also had tremendous success by implementing PBS in most of the state’s school systems beginning in 2002. Within two years of implementation the state saw reduction of 6,010 office discipline referrals and 1,032 suspensions, with middle and high schools experiencing the most benefit. By one estimate, these reductions in office referrals helped recover 864 days of teaching, 1,701 days of learning, and 571 days of leadership. The implementation was also associated with academic gains in math for the majority of participating schools (Muscott, Mann, & LeBrun, 2008).

This chapter presented research on student behavior and its relationship to academic achievement and research findings on positive behavior support and classroom management. Research has documented the use and varying effectiveness of multiple behavior management plans intended to decrease problem behaviors increase student achievement. This study will add to the existing knowledge base on positive behavioral systems by demonstrating if a relationship exists between a teacher’s knowledge and use of PBS. Secondly, this study will add to existing knowledge base which attempts to link student behavior and students academic achievement. Of
particular concern to those who study, develop and implement curriculum and instruction, these findings may indicate if positive behavioral systems should be more widely implemented in public schools.
CHAPTER 3: METHODOLOGY

Introduction

The purpose of this research study was to measure the effects of Positive Behavioral Support on second graders’ academic achievement. This chapter presents a description of the study, a description of the participants, the research design, and the instrumentation that was used. This chapter also describes the procedures used by the researcher in gathering and analyzing data and the measures taken to ensure the study’s reliability and validity.

Research Method and Design

This research study involved gathering and analyzing quantitative and qualitative data from a teacher survey, classroom observations and student achievement scores in reading. The data collected in the study were analyzed to determine if a correlation existed between a teachers’ knowledge of PBS and their usage of PBS. In addition, the data were analyzed to determine if a relationship existed between teachers’ use of PBS and student academic achievement. The researcher collected data from the participants by means of a questionnaire, classroom observations and student test scores in reading. The use of these three research strategies provided the researcher with information concerning the participants' knowledge of PBS, use of PBS strategies and student achievement data. This research design provided information concerning the type and frequency of PBS strategies used.

Setting

The rural school district where the study was conducted is located in southeastern North Carolina. As reported by School Matters in 2006, the district's population was approximately 3,100 students. The district is classified by the State as a low wealth, high poverty district with 60.2 percent of the students coming from economically disadvantaged homes. The racial
demographic of the district is approximately 35.9 percent white, 46.7 percent African American, 12.8 percent Hispanic, 3.7 percent American Indian and 0.9 percent from other ethnic and racial backgrounds.

First Street Elementary School (a pseudonym) has a student population of 569 students in grades two and three, 36 percent of whom are white, 41 percent are African American, 18 percent are Hispanic, 3 percent are American Indian and 3 percent are multi-racial. 64.34 percent of students qualify for free and reduced meals (Clinton City Schools, January 2009). Table one below presents the demographic profile of the students in this study.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>percent of students</th>
</tr>
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<tbody>
<tr>
<td>White</td>
<td>36%</td>
</tr>
<tr>
<td>Black</td>
<td>41</td>
</tr>
<tr>
<td>Hispanic</td>
<td>18</td>
</tr>
<tr>
<td>American Indian</td>
<td>3</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>3</td>
</tr>
<tr>
<td>Eligible for free and reduced meals</td>
<td>64.34</td>
</tr>
</tbody>
</table>

Table 1. Demographic Profile of Study Participants (Students).

The administrative staff of First Street Elementary School consists of one white female principal and one black male assistant principal. There are a total of 39 licensed classroom teachers and resource positions. There are four differentiation specialists housed at the school and there is a full time gifted specialist to serve the whole school.

Students are heterogeneously grouped for most subjects. Learning Disabled students are in an inclusion setting for all of their subjects and receive extra remediation during an elective time during the day. Gifted students are grouped onto one team at each grade level, but are not
grouped according to their area of giftedness, which still allows for a heterogeneous group. These students receive enrichment activities during an elective time during the day.

In compliance with the requirements of the Institutional Review Board at the University of North Carolina Wilmington, the researcher applied for and received consent to conduct this study at First Street Elementary School. The researcher also received written consent from the principal at First Street Elementary School to recruit study participants, distribute surveys to participants, and to conduct classroom observations.

Description of Subjects and Sample Selection

A total of eleven teachers participated in the questionnaire and classroom observations. The participants were all second grade teachers. Specific information on the participants is included in Tables 2.

The researcher solicited the study sample from among the certified second grade teachers at First Street Elementary School based on their willingness to participate in the study. Participants were invited during a regularly scheduled grade level meeting. The researcher told them that their participation in both the questionnaire and the classroom observation was completely voluntary. Consent forms were left at the meeting. Based upon their consent, questionnaires were then distributed to teachers. Participants completed a questionnaire concerning their knowledge of PBS. The researcher received 11 completed questionnaires from 12 eligible participants.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequency</th>
<th>percent of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>11</td>
<td>100%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>11</td>
<td>100</td>
</tr>
<tr>
<td>1-3 years of experience</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>4-10 years of experience</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>11-20 years of experience</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>20 years of experience or more</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hold Bachelors Degree</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2. Demographics of Participants in Study (Teachers).

| Hold Masters Degree | 1 | 0.09 |

Instrumentation

*Teacher Survey of PBS Knowledge* (see Appendix A) is questionnaire created by the researcher based on the principles of positive behavior support and the parts of the program that had been adopted by First Street Elementary School.

The *Teacher Survey of PBS Knowledge* was divided into two sections. The first section contained four questions that related to what the teacher knew about PBS based on the information that had been provided by First Street Elementary School in staff development. The second section contained five items and dealt with the use of PBS strategies in their classrooms.

The nine-item questionnaire had a lickert scale between 1 and 5 for each item and a maximum score of 45 points. The higher the score, the greater the participant’s knowledge of and comfort with using PBS.

The use of a questionnaire was used to collect data because it allows for gathering a large amount of data during a limited time. It is also cost effective and in the past, teachers have been quite reliable at cooperating with this type of data collection. Questionnaires also allow for teachers to respond at their convenience (Hobson, 2004, p. 44).

*Observation Checklist of PBS Strategies* (See Appendix B): This instrument was used to record data during teacher observations. The observation checklist was also developed by the researcher and was based on the principles of PBS. The checklist consisted of 13 items. Having a limited number of items to look for made the observation of data within the 30 minute classroom visit more plausible, and also allowed the recording of data between observations to be more efficient. The face and content validity of the instrument were strengthened due to the fact that it was built around the principles of PBS.
Data Collection Procedures

After announcing the objectives and data collection procedures of the study to the second grade teachers of First Street Elementary School, the researcher distributed the *Teacher Survey of PBS Knowledge* to all participating second grade teachers’ mailboxes the following morning. The *Teacher Survey of PBS Knowledge* was administered to identify the knowledge of PBS strategies used by regular classroom teachers. Participants were given three days to complete and return the questionnaire.

The second phase of the data collection was done by classroom observation. After the questionnaires were completed, the researcher began observations in the classrooms during instructional time. The researcher created a consent form which explained objectives of the study, data collection procedures, privacy information, and requirements of the participants. Teachers who volunteered to participate were required to sign this consent form, as directed by the Institutional Review Board, and return it to a designated mailbox in the school office within seven days. The researcher received consent from eleven second grade, regular classroom teachers.

After consent was received, unannounced observations of 11 classrooms were conducted in order to observe the actual use of PBS strategies by teachers in the heterogeneously grouped classroom. The observations were done in a walk-through fashion and the observer spent approximately 30 minutes in each classroom with several classrooms being visited within a few hours. The participants were not informed when they would be observed, as the researcher wanted to ensure that the data collected during the observation was indicative of the teacher’s practices as much as possible. During each classroom visit, data was recorded on the *Teacher Observation Checklist*. Each item on the checklist that was observed was designated with a
check. If the strategy was not observed, the item was left unmarked. Comments were then made regarding each item.

Reliability and Validity

A questionnaire was selected to collect quantitative data for the study. Research conducted by Bradburn and Sudman (1984) suggests that questionnaire response rates for college graduates are usually very high because they are familiar with the format of forms and questionnaires. It has also been found that teachers often prefer questionnaires rather than an interview because they can be completed at a convenient time. The anonymous nature of questionnaires is also attractive.

As with any document, a major concern of a questionnaire is that it be easily understandable by the participants. The questionnaire should be easy to read and the directions should be self-explanatory. To insure clarity, the questionnaire was given to two third grade classroom teachers and the thesis advisor for review and suggested modifications were made.

According to Gall, Borg, and Gall (1996) non-response bias is a major threat to external validity. Precautionary measures were taken to prevent responsive bias. The participants were asked to take the survey alone. A reminder was sent to the faculty one day before the deadline for turning in the questionnaire and again on the day it was due.

A major threat to validity, especially in a study in which the participants may be familiar with the researcher, is the issue of truthfulness on the part of the participants (Weiss, 1975). Teachers may hesitate to admit they do not use PBS strategies included on the survey in their classrooms. This may be even more common when the researcher is a colleague. The challenge of soliciting honest responses from the participants was addressed by reminding participating teachers at a grade level meeting, and in an email, that the purpose of this study was
to improve knowledge in the field of positive behavior support. Teachers were also repeatedly assured anonymity of their responses. Weiss (1975) found that participants tend to be more honest in their responses to a questionnaire than when they are in a face to face interview.

To further the study’s validity and reliability, the researcher, who is also a second grade teacher, did not participate in the study. The researcher also did not speak about the study during any grade level meetings after the study began.

Data Analysis

Data from two major data sources were used in this research. The sources included a teacher questionnaire and classroom observations. The procedures for analyzing the data included: (a) organizing the data; (b) generating categories, themes, and patterns; (c) and examining the data to answer the research questions identified in the introduction of this study.

Both the teacher questionnaire and the observation checklist provided quantitative and qualitative data for the study. Following the data collection process, the 9 items which were included on the questionnaire and the 11 items from the observation checklist were analyzed for frequency. The researcher then ranked the results according to frequency and compared the frequency with which teachers self-reported using PBS strategies to the frequency of which the researcher observed them being used in the classroom.

The researcher also analyzed the results of the classroom observations to find the mean frequency with which teachers used PBS in their classrooms. The mean number of PBS behaviors was computed for all participants. Participants were then categorized as infrequent users if they scored below the mean and frequent users for those who scored above. A descriptive profile was created to represent these two groups based on their demographics.
Correlations were run between each group (frequent users and infrequent users) and the number of instances they were observed using PBS in their classrooms.
CHAPTER 4: FINDINGS

Introduction

This chapter is divided into two sections in order to present findings related to the two research questions investigated in this study. The first section will answer the first research question and will include an analysis of the data collected from the questionnaire, an analysis of the data collected from the classroom observations, and a comparison between the observed use of PBS strategies and the use of PBS strategies as self reported by teachers. The second section of this chapter will answer the second research question and includes an analysis of student academic achievement in reading observation data from teachers’ use of PBS in the classroom.

Research Question One

*What relationship exists between a teacher’s knowledge of PBS and their use of the practice.?* The Knowledge of PBS Questionnaire consisted of nine items relating to PBS strategies. Teachers were asked to indicate the frequency which they used PBS strategies in their classrooms and they answered questions to demonstrate their knowledge of PBS. The items on the questionnaire corresponded to the ten observable behaviors included on the Observation Checklist. Responses to the items that appear on both of the data collection instruments were selected from the questionnaire and analyzed. Teacher’s knowledge and comfort with PBS was determined by their score on the PBS Questionnaire.

The researcher then analyzed the data collected using the teacher Observations Checklist for frequency. The number of times PBS strategies were observed was tallied and totaled. Based on a 1-5 lickert scale (5 being highest knowledge and use), Table 3 shows teachers self-reported knowledge and use of PBS. Table 3 also shows the frequency with which the five selected PBS behaviors were observed during each 30-minute classroom observation.
<table>
<thead>
<tr>
<th>PBS Strategy Used</th>
<th>Self-Report (1-5)</th>
<th>Observed Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am aware of the consequences for problem behaviors.</td>
<td>3.63</td>
<td>1</td>
</tr>
<tr>
<td>I systematically reinforce positive procedures.</td>
<td>4.18</td>
<td>4.45</td>
</tr>
<tr>
<td>I recognize positive behaviors of not only my students but other students in the school.</td>
<td>4</td>
<td>0.90</td>
</tr>
<tr>
<td>I directly teach expected positive behaviors.</td>
<td>4.27</td>
<td>0.81</td>
</tr>
<tr>
<td>I feel I effectively use PBS in my classroom.</td>
<td>3.40</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3. Teachers’ Knowledge and Use of PBS Strategies.

The results of the data analyses show that nearly 50 percent of the participants are relatively comfortable with their knowledge and use of PBS. The teachers scoring higher (between 21-25) on the knowledge and use survey, were observed using PBS strategies more frequently by the researcher. At the other end of the scale, those who were not as knowledgeable (scoring 10-20), were observed using PBS strategies less in the classroom. Table 4 presents PBS knowledge scores and observed frequency of use for those teachers who scored above the mean (19.68) on the PBS knowledge assessment. Table 5 presents the PBS knowledge scores and frequency of observed use for those teachers who scored below the mean. Teachers who rated themselves as more comfortable with reinforcing positive procedures were observed doing so more often than those who were not as comfortable. Also, those above the mean were more likely to teach expected behaviors and were observed doing so.
I recognize positive behaviors of not only my students but other students in the school. 5 1
I directly teach expected positive behaviors. 5 1
I feel I effectively use PBS in my classroom. 4.25 1

Table 4. Teachers’ Self-Report of Knowledge and Use of PBS Strategies (Above the mean).

<table>
<thead>
<tr>
<th>PBS Strategy Used</th>
<th>Self-Report (1-5)</th>
<th>Observed Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am aware of the consequences for problem behaviors.</td>
<td>2.2</td>
<td>1</td>
</tr>
<tr>
<td>I systematically reinforce positive procedures.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I recognize positive behaviors of not only my students but other students in the school.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I directly teach expected positive behaviors.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I feel I effectively use PBS in my classroom.</td>
<td>2.83</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 5. Teachers’ Self-Report of Knowledge and Use of PBS Strategies (Below the mean).

Research Questions Two

Data collected from the classroom observations and the accompanying survey of PBS knowledge were analyzed to answer the second research question: *Is there a relationship between teachers’ use of PBS and student academic achievement?* The researcher tallied the number of PBS strategies used by each teacher as recorded on the observation checklist. The PBS strategies used by each teacher were counted and analyzed to determine the mean. After determining the mean use of PBS, teachers were divided into two groups: Frequent Users and Infrequent Users of PBS. Teachers whose frequency of use was above the mean were designated Frequent Users, and those whose frequency of use was below the mean were designated Infrequent Users. The frequent users comprised 45.5 percent of the sample and had been
teaching on average for seven years. This was compared to infrequent users who comprised 54.5 percent of the sample and had been teaching an average of six years.

Students’ reading scores were analyzed by classroom to see if a relationship exists between the frequency with which teachers use PBS and the academic gains of their students in reading. The results are displayed in Table 6 and Table 7.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude about use and knowledge of PBS</td>
<td>17.3</td>
</tr>
<tr>
<td>Number of PBS strategies observed</td>
<td>6.5</td>
</tr>
<tr>
<td>Growth of students in reading based upon STAR test</td>
<td>0.353 points</td>
</tr>
</tbody>
</table>

Table 6. Infrequent Users of PBS and Students’ Academic Achievement in Reading.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude about use and knowledge of PBS</td>
<td>22.5</td>
</tr>
<tr>
<td>Number of PBS strategies observed</td>
<td>14.4</td>
</tr>
<tr>
<td>Growth of students in reading based upon STAR test</td>
<td>0.313 points</td>
</tr>
</tbody>
</table>

Table 7. Frequent Users of PBS and Students’ Academic Achievement in Reading.

The data above show that the relationship between students’ growth in reading, at the class level, is not positive in regards to teachers’ use of PBS. Additionally, the results indicate that no positive relationship exists between teachers’ knowledge and use about PBS and students’ growth in reading.

With respect to a teacher’s years of experience and their knowledge and use of PBS, there appears to be a negative relationship that exists between the number of years of experience and their knowledge and attitude about PBS and their observed use of PBS in their classrooms.

Summary of Findings

The purpose of this research was to study teachers’ knowledge and use of PBS strategies and determine if this knowledge and use has an effect on student academic achievement in reading. The data reveal that most teachers participating in this study report being aware of, and
using, PBS strategies. The data show that teachers are nearly twice as likely to use PBS strategies based on their knowledge of them and the program.

According to the data collected and analyzed in this study, educational and contextual factors such as years of experience, knowledge of the program, and attitude about PBS have no positive effect on students’ academic achievement in reading. In fact, the students of the five frequent PBS users in this study demonstrated less growth in reading than those of six infrequent users who participated.
CHAPTER 5: CONCLUSIONS, SUMMARIES & RECOMMENDATIONS

Introduction

Chapter four presented the findings from a research study on teacher’s knowledge and use of PBS strategies in elementary school classrooms. This chapter will discuss the study’s implications, recommendations, limitations and suggestions for future research.

Implications of the Findings

Research question one asked *What relationship exists between teachers’ knowledge of PBS and their usage of PBS in their homogeneous classrooms.* The findings presented in chapter four indicate that the specific PBS strategies which teachers self-report using most frequently in their classrooms are the very same strategies most frequently observed by the researcher. A likely reason for the consistency of the findings among the two means of data collection (observations and questionnaire) is that the specific strategies that were determined to be most often implemented are strategies that many teachers use in their daily practice, regardless of whether or not they intend to use PBS. For example, strategies listed on the survey such as “I systematically reinforce positive procedures,” or “I recognize positive behaviors of not only my students but other students in the school,” are not strategies which are exclusively associated with PBS, but are examples of equal treatment of students. This could mean that many teachers in the study were not actually following a model of PBS, but simply implementing what they think is a best practice.

In answering research question one, the researcher also discovered that a drastic gap exists between teachers who are *Frequent Users* or *Infrequent Users* of PBS. Infrequent Users were only observed using 6.5 PBS strategies, in a 30-minute period, while Frequent Users were observed implementing a mean of 14.4 strategies during the same period of instruction. There...
was little variance in terms of observed PBS behaviors among frequent or infrequent users, indicating that at First Street Elementary School teachers either do or do not use PBS; there seems to be no real middle ground. This disparity in the use of PBS strategies implies that there may be vastly different types of classroom management systems occurring within the same school building. Although PBS is used as a school-wide policy, each teacher has their own set of class rules and methods of enforcing them. There are many similarities in these rules and enforcements, but it is a teacher’s choice how matters are handled in his or her own classroom.

After analyzing the data to answer research question two, Does a relationship exist between teachers’ use of PBS and student academic achievement, the researcher discovered that the infrequent users of PBS had more growth in reading than those who were frequent users. Although the data demonstrate that a relationship between knowledge and use of PBS and student academic achievement, did not emerge in this study, this could be because the classes are made up of heterogeneously grouped students of various academic levels and backgrounds. Student-level data show, in some cases, a relationship between knowledge, use and achievement. However, at the class level, no such relationship emerged. No relationship may have appeared because PBS is in its first year of implementation at First Street School. Another reason for these findings could be the length of the observation. Another reason for the findings could be that only one measure of student achievement was used for the pre-test/post-test design of this study. It is quite conceivable that if more than one measure had been analyzed for a longer period of time, students may have shown more growth.

Recommendations

At First Street Elementary School there is great poverty with 60.2 percent of the children coming from economically disadvantaged backgrounds. Therefore, there is a pressing need for
the school’s teachers to be able to meet the social, academic, and behavioral needs of disadvantaged learners. It is the recommendation of the researcher that school-wide staff development on PBS take place. The researcher believes that with more training, and the full implementation of the PBS program more growth will be shown by the students. The training should focus on all aspects and domains of PBS, including how PBS can improve academic achievement especially in reading. All administrators and teachers should attend training. Targeting the whole staff could prevent the disparity and inconsistency of use of PBS strategies. Schools and local universities could use this study to help guide staff development on the topic of PBS.

Whether or not PBS positively relates to student performance is not the only way to judge its effectiveness. The fact that PBS creates an environment where children feel empowered or comfortable is also valuable. Although academic gains were not reported in this study, PBS has contributed to a more positive learning and teaching environment for all involved within First Street School.

Limitations of the Study

The following limitations are inherent in the study. The study is restricted to one elementary school in a small school division. Generalizations cannot be made for other grade levels or other elementary schools. Because data were collected with a questionnaire, the responses were dependent on the subjective attitudes and perceptions of the participants. An additional limitation of the study was the selection of participants. The sample of teachers, particularly for the classroom observation component of data collection, was very small. A small sample also prevents the researcher from making broad generalizations about the results. Next, the researcher is a colleague of the faculty at First Street Elementary. This could have interfered
with the performance of the participants during the observations. Also, PBS is in its first full year of implementation as a part of a three year process. Though no growth was shown by frequent users this could change over the next three years when full implementation has taken place. Also as the teachers become more familiar with the program their infrequency of use may decrease. Finally, the short duration of the observations (about thirty minutes) was also a limitation.

Suggestions for Future Research

1. The study might be repeated in several elementary schools to determine if the use of PBS is similar in other elementary schools also using the program.
2. This study might be repeated using a larger sample, using lengthier, more frequent classrooms observations, and achievement scores for an entire school year to see if the data and results are the same.
3. A study might be conducted in middle or high school grades to determine if knowledge and use of PBS by teachers has an effect on the academic achievement.
4. A more detailed study might be conducted to determine exactly what kind of impact PBS has on a particular group of students over an extended period of time.

Summary

Student behavior has and will always be a part of the educational landscape. Finding new ways to reach students and help them learn will be vital as the American family and American schools continue to change. By using positive behavior support systems in schools, the learning environment is transformed into a place where students are encouraged and rewarded to achieve and succeed. It is the researcher’s opinion that continued research on the topic of positive behavior support and its relationship to academic achievement will prove valuable to the field of education.
REFERENCES


APPENDICES

APPENDIX A

TEACHER SURVEY OF PBS KNOWLEDGE

1. How is PBS used in my classroom?

2. What does PBS mean to you?

3. Please fill in what the acronym HORSE stands for:
   
   H-
   O-
   R-
   S-
   E-

4. How do the students know what is expected of them?

Indicate your level of agreement with the following items. 1 means you strongly disagree 5 means you strongly agree.

5. I am aware of the consequences for problem behaviors.
6. I systematically reinforce positive procedures.

7. I recognize positive behaviors of not only my students but other students in the school.

8. I directly teach expected positive behaviors.

9. I feel I effectively use PBS in my classroom.
APPENDIX B

TEACHER OBSERVATION CHECKLIST

Teacher: ________________

Time: ______ Length of Observation: ____________ Grade: ______

Subject being taught: ______________ Instructional approach: ______________

Number of Students: ______________ Boys:_____ Girls:_____

___ Students are praised and rewarded for positive behaviors.

   Number of times _____

___ Rules and expectations are clearly posted.

___ Be a HORSE is posted.

___ The teacher uses the BE A HORSE motto.

___ Consequences are posted.

___ Students are treated equally

   ___ Misbehaviors are verbally acknowledged by the teacher (# of times _____)
   ___ Proper behaviors are verbally acknowledged by the teacher (# of times _____)

___ Students are treated with respect.

___ A positive attitude is exhibited by the teacher. (seems happy about the job/task)

___ A “can do” attitude is exhibited by the student.

   ___ The students are on task. (Work is being completed, no talking/playing not related to task)

   ___ The students are engaged. (Actively listening and participating)

   (Approximate percentage: ______)

Comments: