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Christopher James Cochran
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CLOSENESS AND CONFLICT IN SCHOOLS: POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS (PBIS) AND TEACHER PERCEPTION OF STUDENT BEHAVIOR AND STUDENT-TEACHER RAPPORT

by

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"CLOSENESS AND CONFLICT: POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS (PBIS) AND TEACHER PERCEPTION OF STUDENT-TEACHER RAPPORT," a Doctoral research project prepared by CHRISTOPHER JAMES COCHRAN in partial fulfillment of the requirements for the Doctor of Education degree in the Educational Foundations and Leadership Department.

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ABSTRACT

This study measured elementary teachers' perceptions regarding the fidelity to which PBIS has been implemented in their school, and the impact that PBIS has had on student behavior and student-teacher rapport. Participant responses (*N*=175) were analyzed using correlation, regression, t-test, and ANOVA. Demographic variables included teacher gender, current grade taught, Title I/non-Title I school placement, years of teaching experience, years of PBIS implementation, and teacher perception of PBIS implementation fidelity. The primary focus of this study was to compare teachers' perception of the impact PBIS has on student behavior and the impact PBIS has on student-teacher rapport. The study's primary findings indicate that gender, current grade taught, Title I school placement, and years of teaching experience are not significant variables in teachers' overall perceptions related to student behavior or student-teacher rapport. Most notably, years of PBIS implementation was found to be negatively correlated with perception of student-teacher rapport (p=<.01, r= -.215), suggesting that teachers' perceptions of student-teacher rapport become increasingly negative with each year of PBIS. Additional findings related to specific survey items found that years of teaching experience was positively correlated with increasingly positive views of PBIS impact on student-teacher rapport (Items #16,17,18,19), and Title I school teachers held a significantly more positive view of student-teacher rapport (Item #14). Positive correlations were found between perception of PBIS implementation fidelity and both perception of PBIS impact on student behavior (p=<.001, r=.494) and student-teacher rapport (p=<.001, r=.535), as well as between teacher perception of PBIS impact on student behavior and PBIS impact on student-teacher rapport (p=<.001, r=.761). Implications for future research and practice are also discussed.

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DEDICATION

When one takes on what seems to be such an overwhelming task, it is often the case that several people, through direct and indirect means, are part of the effort that eventually accomplishes it and sees it through to completion. This project has been no exception, and it is with my utmost admiration and gratitude that I give credit to my family, friends, and my peers and professors in the EdD program over these last few years.

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Chapter 1

Introduction

Public schools in the United States are in the midst of a deepening chasm between the call to provide a quality education for a diverse population of students and the need to find the funding and resources to make that a reality (Education USA, 2011). The American public school system's primary task and responsibility is to give each student a "free appropriate public education" (FAPE) (Office for Civil Rights, 2007). In the face of this juxtaposition that educators have before them, several factors impact their ability to deliver this education. Shortages of highly qualified teachers in science, mathematics, and special education, along with decreasing revenue streams and changing educational legislation are serious challenges that increase the stressful nature of the educators' task of meeting students' learning targets (Montrosse & Young, 2012). As the frequency and intensity of aggressive student behavior has increased in schools, student behavior has become a significant challenge for teachers as they work to establish and maintain supportive learning environments in their classrooms (Cregor, 2008). Significant increases in problematic student behavior have required teachers and administrators to adapt their practices and adopt strategies that address these challenges to maintain learning in their classrooms (Walker, 1993).

Educators, psychologists, politicians, and others have come up with numerous ideas and models to address the growing issue of problematic student behavior. Among these models and approaches to managing student behavior in schools, one program that has gained widespread recognition is Positive Behavior Intervention Supports (PBIS) (Bradshaw, Reinke, Brown, Bevans, & Leaf, 2008). PBIS was developed by a group of researchers, educators, and behaviorist psychologists predominantly from the University of Oregon (Sugai & Horner, 2002).

PBIS is designed to decrease undesired student behavior and increase desired student behavior by focusing positive attention on these desired behaviors. School-wide Positive Behavior Intervention Supports (SWPBIS) is an approach that involves all school staff using instruction, modeling and reinforcement to encourage positive social behavior (Hill, 2011). PBIS uses a multi-tiered approach to prevent and decrease problematic student behavior and promote pro-social behaviors, including primary, secondary, and tertiary interventions (Eber, Sugai, Smith, & Scott, 2002).

While most research regarding PBIS has been focused on its effectiveness in reducing problematic student behavior, there has not been a significant amount of research done on PBIS and possible impacts to student-teacher rapport and relationships (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008). Teachers' ability to establish and maintain positive rapport with students has been shown to play a significant role in students' educational success (Kennedy, 2008). PBIS emphasizes the role teachers play in modeling and reinforcing positive student behavior. The connections between this process of teaching and re-teaching behavior expectations and teachers' ability to maintain positive student-teacher interaction is one that deserves further study. Between the study of impacts of positive student-teacher rapport on student success and research on the efficacy of school-wide behavior management systems, there is a current gap in the research examining these school-wide systems on student-teacher rapport and school culture. Current research has shown significant correlations between positive student-teacher rapport and student success, and this correlation may have value when considered in the context of PBIS (King & Chan, 2011).

Problem Statement

The purpose of this study was to investigate teachers' perceptions of student behavior and student-teacher rapport, and possible connections with PBIS implementation in their schools. The researcher used a quantitative approach employing online self-administered surveys with elementary teachers to examine teachers' perceptions of the impact of PBIS on student behavior and student-teacher rapport. Data from teacher's responses were used to examine the association between six independent variables (gender, years of PBIS implementation, Title I or non-Title I schools, perception of PBIS fidelity, grade level taught, and years of teaching experience) and two dependent variables (changes in student behavior and teacher perception of student-teacher rapport). An objective of this study was to provide stakeholders responsible for instruction, discipline, and supervision of students with information regarding the effectiveness of PBIS in not only encouraging positive student behavior, but also enhancing positive and effective student-teacher relationships in schools.

Research Questions

Teacher's perceptions of student behaviors and the rapport teachers have with their students are important as they provide a window into the thoughts, feelings, and experiences of the adults who have the most contact and interaction with students during the school day. These perceptions, along with teachers' experiences with PBIS, may offer new information and insights that can lead to future research concerning effective instructional and relational approaches that will improve student learning, school culture, and student-teacher rapport.

This study will survey elementary teachers regarding their perceptions of student behavior, student-teacher rapport, and PBIS implementation in their school. The following questions point to the focus of this study:

1. Are there any significant relationships between gender, grade level taught, years of experience teaching, placement in Title I or non-Title I schools, years PBIS has been implemented in participants' school, perception of implementation of PBIS, and teacher perception of changes in student behavior and student-teacher rapport?
2. Is there a relationship between teachers' perceptions of PBIS effect on student behavior and student-teacher rapport?

Hypotheses

H_1: There will not be a significant difference in teacher perception of student behavior based on gender.

H_2: There will not be a significant difference in teacher perception of student-teacher rapport based on gender.

H_3: There will not be a significant difference in teacher perception of student behavior based on current grade taught.

H_4: There will not be a significant difference in teacher perception of student-teacher rapport based on current grade taught.

H_5: There will be a significant difference in teacher perception of student behavior based on job placement in Title I schools.

H_6: There will be a significant difference in teacher perception of student-teacher rapport based on job placement in Title I schools.

H_7: There will be a significant difference in teacher perception of student behavior based on years of teaching experience.

H_8: There will be a significant difference in teacher perception of student-teacher rapport based on years of teaching experience.

H_9: There will be a significant difference in teacher perception of student behavior based on years of PBIS implementation in teacher's school.

H_{10}: There will be a significant difference in teacher perception of student-teacher rapport based on years of PBIS implementation in teacher's school.

H_{11}: There will be a significant difference in teacher perception of student behavior based on teacher perception of fidelity of PBIS implementation in teacher's school.

H_{12}: There will be a significant difference in teacher perception of student-teacher rapport based on teacher perception of fidelity of PBIS implementation in teacher's school.

H_{13}: There will be a significant correlation between teacher perception of student-teacher rapport and teacher perception of student behavior.

Key Terms

Implementation refers to a planned program being carried out or applied in a particular context according to its original intent (Beets, 2007). Relevant or inferred concepts include the integrity of the program, fidelity of practice, and adherence to the stated purposes and procedures of the model or program.

Interactional relationship refers to the quality and nature of a relationship in which the individuals involved are interacting in a manner that takes into consideration the needs, thoughts, and feelings of the other in the relationship. An interactional relationship has an inherent reciprocal nature within it and contains a focus of the involved individuals on mutual benefit and enrichment, with a level of care for the other being present.

Internalized behavior refers to behavior that is acted upon from intrinsic motivations, as opposed to extrinsic motivations. Internalized behavior implies that the individual does not require external reinforcement to maintain this behavior, but rather that either through previous

reinforcement or internal motivation, the individual has sufficient self-motivation and motivation to exhibit this behavior.

Positive Behavior Intervention Supports (PBIS) is a framework or approach for assisting staff and teachers in adopting evidence-based behavioral interventions into a multi-tiered approach that enhances academic and social behavior outcomes for all students. PBIS is not a packaged curriculum or series of strategies, but rather a prevention-focused approach to promoting positive student behavior and student-staff interaction. PBIS is meant to support the success of all students.

Positive Behavior Supports (PBS) is identical to the PBIS, but was an earlier iteration of the same approach to behavior prevention and management in schools. It was later revised to PBIS.

Rapport refers to "a close or sympathetic relationship; agreement; harmony" (Guralnik, 1982, p. 1177). While the close nature of rapport may vary greatly, there is shared element of reciprocity and interaction between the individuals involved.

School-wide behavior program refers to a system or systems put in place on a school-wide scope to address and decrease undesired student behaviors and increase desired student behaviors. While there are many programs and approaches developed that fit this description, this study will focus its consideration on PBIS.

School-wide Positive Behavior Intervention Supports (SWPBIS) refers to the school-wide implementation of PBIS. Intended benefits of SWPBIS are fidelity of implementation among staff and a concerted approach in which expectations, staff responses, and consequences are communicated consistently to staff, students, and parents. Some researchers have used SWPBIS to refer to the universal level of interventions within the PBIS framework, but this study will

consider SWPBIS as a reference to the PBIS school-wide framework as a whole (Bradshaw & Pas, 2011).

Student-teacher rapport is a description of the nature of the interactions and relationship between teacher and student, based on perceptions of mutual engagement, emotional investment, availability, and connection. Rapport carries a connotation of positive relation and interaction, or at least that there is some level of reciprocal interaction present. For instance, in a situation where the student is trying to initiate positive interaction with a teacher and the teacher is not responding or not responding positively, it could be said that "there is a lack of rapport in the student-teacher relationship". It should also be noted that while much of the current research uses the term "student-teacher relationship", the researcher will tend to use the term *rapport* in favor of the term *relationship* to avoid any association with inappropriate 'student-teacher relationships' that have become a recurring topic and wording used in the mainstream media.

Student-teacher relationships describes the quality, nature, and type (or trends) of interactions between students and teachers, as well as the dynamic that develops between the student and teacher as a result of those interactions. This term does carry with it connotations of reciprocity, in which both the student and teacher contribute to the relational dynamic that the student and teacher share as a result of those interactional contributions. Relationships can be positive or negative, and can also include dimensions such as varying levels of rapport, history of interactions, power dynamics, and the role that each person plays within that specific relational context.

Transactional relationship refers to the quality and nature of a relationship in which the individuals involved are more focused on getting her/his own needs met, rather than achieving a mutual benefit with those involved, or at the expense of the other. In contrast to a focus on

reciprocal interaction and mutual enrichment, one or both of the individuals are focused on achieving an end which is separate from the relationship, with the relationship functioning as a means to that end.

Limitations and Delimitations

The study used quantitative data gathered by the researcher, using a self-administered online survey with a medium-sized sample (*N*=175). Limitations based on the sample selection are the socioeconomic status, the cultural backgrounds and languages of populations within those schools as represented in teachers' perceptions, and the suburban location of the district in a metropolitan area of the northwest United States. As a purpose of this study was to examine elementary teachers' perception of student behavior and student-teacher rapport in relation to PBIS, the data gathered and the number of questions were limited in order to focus specifically on those areas of interest. By its nature, the online self-administered survey allows the researcher to gather data from a larger sample across the participating school district. In the same way, this survey design gathered data from elementary teachers related to teacher perception using scaled responses that allow for quantitative analysis. The survey was sent out to 582 elementary teachers in K-6 schools across the district.

The researcher also limited the sample to elementary schools within one district so that findings could be considered in relation to implementation and organizational factors specific to that district's implementation process of PBIS. The researcher also chose to focus on data gathered from the survey in order to analyze connections between the dependent and independent variables. This delimitation does not consider teachers' perceptions in comparison with district data related to actual referrals, suspensions, or student behavior trends. The length of the survey was limited so that participants can complete it in 5-10 minutes. While this limited

the scope and depth of survey data gathered, it was intended to increase the response rate by making it as convenient as possible for teachers to complete.

Chapter 2

Review of the Literature

Introduction

The purpose of this study is to investigate teachers' perceptions of student behavior and student-teacher rapport in terms of possible connections with PBIS implementation in their schools. Educators have long been engaged in research with the hope that it will enrich and improve their practice and service to their students. As teachers work long hours to find new ways to help their students learn, it makes sense to work not only harder but smarter as well. Looking for connections between interventions or approaches to instruction and the outcomes they produce is of central importance as educators seek to improve their effectiveness (Frisby & Myers, 2008). Attempts to identify possible connections specifically between student-teacher rapport and student academic achievement have created a long history of consistent emphasis on this relational component of good instruction, as evidenced by Root's (1934) publication on this subject in the early twentieth century.

Within the context of this search for meaningful connections between teachers' efforts, student-teacher rapport, and the academic achievement of students, which is often looked to as a sole outcome of effective schools, a continual stream of new approaches, models, and programs make their way into schools each year. In recent years, PBIS has proliferated across the U.S. educational landscape, addressing problematic student behaviors and with a school-wide system that enhances schools' ability to articulate behavioral expectations for students (Sugai & Horner, 2002). PBIS has experienced widespread success, with schools across the U.S., Canada, and the world adopting this school-wide approach. It is estimated that in the U.S. alone, 14,000 schools are currently implementing PBIS (Bradshaw & Pas, 2011). Within the intersection of PBIS'

widespread use in schools to reduce negative student behaviors and develop positive behavior expectations, and the important role that student-teacher rapport plays in academic engagement and achievement, there is a need for closer examination into possible connections between these two dynamic phenomena.

Student-teacher Rapport

In the interest of improving teaching and learning, education is primarily concerned with increasing teacher effectiveness and student achievement. In the pursuit of improving student learning, the student-teacher relationship, and more specifically, the rapport that develops within those relationships, has been found to be a significant factor in students' overall school success (Roorda, Koomen, Spilt, & Oort, 2011). Rapport can be described as an overall feeling between two people encompassing a mutual, trusting, and pro-social bond (Catt, Miller, & Schallenkamp 2007; Faranda & Clarke, 2004; Gremler & Gwinner, 2000). Rapport has also been discussed as a relationship-oriented term that captures what is experienced in an interpersonal relationship (Jorgenson, 1992). Rapport is indicative of the positive relationship between teacher and student, with immediacy being one way to create that positive relationship (Wilson, Ryan, & Pugh, 2010). This concept of immediacy within the context of student-teacher rapport has also been defined as psychological availability (Mehrabian, 1969). Jorgensen (1992) also asserts that teaching is a rapport-intensive field, and that building rapport with students may further their perception that a classroom is a context that lends itself to the development of interpersonal relationships. The recognition that students and teachers are developing rapport within the classroom context is important as we acknowledge that the learning process is more than just a transaction or exchange of ideas or information.

Gremler and Gwinner (2000) operationalize rapport using two dimensions: personal connection and enjoyable interaction. The *Student-Teacher Relationship Scale* (STRS) is designed to measure the strength and qualities of student-teacher relationships, grouped in three areas: closeness, conflict, and dependency (Koomen, Verschueren, van Schooten, Jak, & Pianta, 2012). The *Teacher–Student Relationship Inventory* (TSRI) (Ang, 2005) assesses teacher perceptions of the quality of their relationship with students on three factors: satisfaction, instrumental help, and conflict (Chong, Huan, Quek, Yeo, & Ang, 2010). While various researchers have chosen to operationalize student-teacher rapport with different dimensions, some consistent themes present themselves in the instruments and research existing in this area. Themes of mutual satisfaction, feelings of closeness, reciprocal interaction, and lower levels of conflict are consistently associated with positive rapport in relationships.

Student and teacher perceptions.

This study examines the perception of teachers concerning student-teacher rapport and student behavior. As such, it is important to ascertain the reliability and validity of teacher perception when considering student behavior and classroom dynamics. In a study that compared the observations of classroom teachers with those of independent observers, the observations of teachers of their own students were compared with those of independent observers on three separate occasions within a school year (Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012). This study found not only that teachers' observations more accurately reflected the students' actual behavioral trends, but also that those observations were less dependent on occasion-specific phenomena.

Frisby and Martin (2010) studied connections between teacher and student perception of rapport between classmates, as well as student-teacher rapport. Interestingly, their study found

that while higher levels of students' perceived rapport with other classmates were associated with increased feelings of class connectedness, it was students' perception of positive rapport with the instructor that had a stronger association with improved student participation, affective learning, and cognitive learning. The researchers also found that teachers' perception of the rapport they had with their students "exerted significant influence on students' academic performance, engagement in school, task compliance, and respect for teachers" (Frisby & Martin, 2010, p. 157).

Rapport and caring.

Researchers have also examined student and teacher perception of teachers' caring behaviors, and King and Chan's (2011) work found that while there are distinctions between student and teacher perception of teachers' caring behavior, there are strong commonalities among the two groups' perceptions. Teachers and students interpreted making time for students outside of class, providing treats for special occasions, using humor in relating with students, and asking students to help with classroom jobs as behaviors that are associated with caring teaching. While rapport may not be directly related to bringing treats for a special occasion, the research shows that the teacher and the learner both feel positive rapport when teachers perform acts of care, kindness, or recognition like these.

Nel Noddings (2003) has dedicated much of her research and writings to the intersection of care and teaching, and she points out that care occurs within a dyadic relationship, as the *carer* and the *cared for* interact. She describes the dynamics of caring as that characterized by mutual dependence and benefit, and she asserts that this is true of the relationship between teacher and student. What is a teacher without students, and what learning will students engage in outside of their own knowledge base without a teacher to guide the learning process? It is this

interdependent nature of relationships characterized by care that creates an interactional relationship, in which student and teacher approach interactions with a mutual interest in benefit based in the relationship itself, along with other benefits of learning, growth, and rewards. In contrast, when people approach a relationship wanting to benefit from byproducts of the relationship but not the relationship itself, the relationship takes on a transactional nature. Byproducts of the relationship may include other relationships, rewards, skills, or information gained by way of the initial relationship. Transactional relationships are best characterized by a primary motivation on the part of one or both parties to engage in the relationship in order to experience benefits other than the inherent benefits of the relationship itself. Teacher and student may come to the classroom hoping to teach and to learn, but not being particularly invested in developing a relationship with the other. While this is certainly a worthwhile pursuit, it would be an example of a transactional relationship on the part of both, in that each is satisfied and motivated by being able to do her/his job, earning a paycheck, gaining new skills, or knowledge, or earning credit for the course.

Noddings (1992) asserts that care occurs when the teachers' caring efforts are acknowledged by the student. She describes specific teaching behavior indicative of differentiation based on students' needs when she states that "caring teachers listen and respond differentially to their students" (Noddings, 2005, p. 19). Garza (2009) affirms Noddings' findings by writing that his own examination of caring teacher behaviors associates care with an approach to instruction that is responsive to students in relation to their individual needs. Garza disagrees with Noddings' view of caring relationships as always being reciprocal, and suggests that teacher-student relationships are often one-way in that the teachers is the caregiver and the student merely the receiver. Whether one views the *cared for*, or receiver, as an active or passive member of the dyadic relationship, the last few decades have produced a significant body of research with findings that

suggest caring behaviors and positive rapport are essential elements in effective instruction (Catt et al., 2007; Faranda & Clarke, 2004).

Attachment to school.

The connection to the school environment and learning process that students feel is often referred to as 'attachment to school' (Hallinan, 2008). Findings have shown that students' attachment to school is associated with successful experiences in the social and academic realms of school, along with personal resiliency on the part of the student (Frisby & Myers, 2008; Georgiou, Demetriou, & Stavrinides, 2008; Henry & Slater, 2007). This connection between students' feelings of attachment to school and academic engagement and achievement is reflected in the literature, and therefore it is important to examine the role of student-teacher rapport in terms of its impact on how students feel about school (Hallinan, 2008).

Researchers have explored these possible connections between the attitudes students have toward teachers and school and how the student-teacher relationship can affect their attitudes toward school (Chong et al., 2010). As attitudes lead to actions, research on student dropout rates has found that "a negative relationship with teachers remains the strongest predictor of high intentions to dropout for most students" (Bergeron, Chouinard, & Janosz, 2011, p. 277). Examining the trajectory students follow toward or away from engagement in school is important as we consider the role that teaching behaviors, school-based interventions, and the student-teacher relationship play in students' school success (Black, Grenard, Sussman, & Rohrbach, 2010; Elmore & Huebner, 2010).

Student engagement.

Students who perceive having positive rapport with their teacher not only report enjoying the teacher and class content more, but they also express a higher likelihood to attend class,

study, and contact their teacher (Benson, Cohen, & Buskist, 2005). As we look at how student-teacher rapport, teaching positive behaviors, and school-based interventions relate to students' attitudes and behaviors related to teachers and school, it is important to distinguish between the perceptions of girls and boys. In a recent study, researchers found that boys' perception of being criticized by their teacher was most predictive of their attitude toward their teacher, while girls' perception of conflict with their teacher accounted for the most significant variations in their attitude (Huan, Choon Lang Quek, Lay See, Ang, & Wan Har, 2012). This same study found that teachers' perception of their relationships with students had an impact on students' perceptions and student performance in those classes.

The Program for International Assessment (PISA) administers an assessment every three years to measure student achievement in reading and math, along with many other areas of student perception, behavior and demographic data of 15 year old students across the world. The most recent PISA data is from PISA 2009, and most countries assess between 2,000 – 10,000 students each, with 65 countries participating in 2009. An examination of PISA 2009 data of U.S. students related to students' perceptions of their relationships with their teachers found that girls' perceptions of their ability to both get along with their teachers and get the help they needed from teachers was significantly different from boys' perceptions in those areas (Cochran, 2012). The study found that girls held more positive views of their ability to maintain good relationships with their teachers and get the help they need to be successful in school. This difference in perception among girls and boys was also found to account for higher student achievement, with a positive relationship between more positive student perceptions and higher academic achievement.

In looking at implications for discipline based on the type of approach teachers take in building and maintaining student-teacher rapport, one study measured the perceptions of 3,500 primary and secondary students in regards to their teachers' approach to discipline (Lewis, 2001). This is important to the discussion regarding student-teacher rapport and student engagement, as the need for discipline in schools represents students' choices to engage in disruptive behaviors and highlights teachers' ability to address these behaviors with the least amount of disruption possible to the learning environment and student-teacher relationships. The researcher found that students characterized their teachers' discipline style in two distinct styles, described as either 'coercive' or 'relationship'. Students associated the relationship style with teacher behaviors including using discussion, hinting, recognition, and student involvement, while the coercive style was associated with yelling and using sarcasm. The study's findings reflected a consistent pattern in which students experience less disruption in their learning when experiencing the relationship style of discipline. In a later examination of similar topics related to discipline and student-teacher rapport, the researchers found that teacher behaviors associated with the relationship style were more effective at preventing and responding to undesired student behaviors, as well as in developing ongoing positive rapport with students (Roache & Lewis, 2011).

In looking at ways to address problematic student behavior equitably among students, one study found that positive teacher-student relationships result in decreased undesired student behaviors across lines of culture and language (Fraczek, 2010). The role student-teacher rapport plays in creating a positive learning environment that benefits all students, regardless of culture or language, is a powerful indicator that student-teacher rapport may also support more formal school systems designed to provide equity in student experiences.

Academic achievement.

Perhaps the most common outcome looked at as a litmus test of how schools are doing is students' academic achievement. Because of the emphasis that media, higher education, communities, and educators put on academic achievement, examining possible connections between student-teacher rapport and academic achievement is an important line of inquiry. If significant connections exist between student-teacher rapport and student academic achievement, it lends increased legitimacy and urgency to an exploration of rapport as a contributing factor in effective instructional practices.

A meta-analysis of 99 studies examining K-12 students and correlations between experienced student-teacher relationships and academic achievement found that there were significant associations between positive student-teacher relationships and improved academic achievement (Roorda et al., 2011). This correlation extends beyond K-12 into higher education, and students in both undergraduate and graduate programs with positive student-teacher relationships were found to have not only stronger motivational orientations, but better academic competence and achievement as well (bhatti & Qazi, 2011).

In an examination of PISA 2009 data, U.S. students who perceived themselves as able to form positive rapport with teachers were found to score higher in both standardized math and reading assessments (Cochran, 2012). These students responded more positively to statements of "I get along well with my teachers" and "I know how to get extra help in school". This student perception of getting along well with teachers and being able to get help accounted for a +22.75 point difference in math scores and a +30 point difference in reading scores. Connections between student-teacher rapport, students' perceptions and behaviors, and students' academic achievement have been consistently found in the research and they are important as educators

evaluate the approaches, strategies, and programs they adopt in their classrooms and schools. Asking ourselves, “How will this program/intervention enhance positive student-teacher rapport and improve instruction and learning?” is central as we develop criteria for those models and methodologies that compete for the attention and resources of schools.

PBIS

In order for a program to be adopted on a broad scale, it is important for it to meet a perceived need effectively, while being understandable enough to avoid being too time and labor intensive to implement or maintain. PBIS seems to have been able to minimize complications and meet perceived needs, and its widespread adoption in K-12 schools across the U.S. and other countries has been fueled by a few key conditions. First and foremost, the No Child Left Behind Act (NCLB) placed a heavy emphasis on accountability for schools, particularly in the areas of student achievement, student discipline, and data-driven decisions (Bradshaw, Mitchell, & Leaf, 2010). PBIS has also benefited from support and promotion from researchers at the University of Oregon with language that is accessible for educators and translates well into terms that are common with current legislation like NCLB (Sugai & Horner, 2002). There are a few components of PBIS that were attractive to districts as a model that could help them accomplish these changes and meet NCLB legislative criteria. The PBIS approach provides schools with a school-wide system to manage behavior by: (Horner, Sugai, Todd & Lewis-Palmer, 2005; Sugai & Horner, 2006)

- communicating universal and specific behavior expectations
- creating rewards and reinforcements for desired student behaviors
- promoting consistency among staff in responding to behavior issues

PBIS is also based on a multi-tiered system that manages problematic behaviors and encourages desired behaviors with a primary level (universal interventions), secondary level (targeted/group interventions), and tertiary level (individual interventions) (Sugai & Horner, 2002). Universal interventions would be measures taken with all students, like whole class instruction, assemblies, and rules posted throughout the school. Targeted interventions are measures designed and implemented with students who have not responded adequately to universal interventions, such as support groups for social or study skills, or structured recess activities for a group of students struggling with unstructured games at recess. Tertiary interventions are designed specifically with the individual student in mind, and may include referrals, modified work, or specialized instruction focused on social skills and/or individual behavior plans. For school districts, one of the benefits of implementing PBIS is the shift from reactive and inconsistent, individual staff responses to misbehavior, to proactive and consistent staff-wide responses that lead to a culture of teaching and encouraging desired behaviors across the school (Netzel & Eber, 2003).

The remainder of this literature review regarding PBIS will consider the areas of student referrals/suspensions, implementation dynamics, organizational culture and change, job satisfaction and collaboration, and student achievement. Within each of these areas, specific focus will be given to PBIS' effectiveness to enhance schools' capacity in accomplishing their goals in serving students and meeting mandates set forth schools by legislation or community expectations.

PBIS and referrals/suspensions.

If one were to identify one main theme in research regarding PBIS, it would be the numerous studies that have found significant connections between PBIS and reduction in student

referrals and suspensions (Barrett, Bradshaw, & Lewis-Palmer, 2008; Cregor, 2008; Horner et al., 2005; Netzel & Eber, 2003). In a study published in 2010, researchers studied dynamics related to the state of Maryland's statewide implementation of PBIS in K-12 schools (Bradshaw et al., 2010). This study found that there were significant connections between PBIS implementation, the fidelity of implementation, and reductions in student referral and suspension rates. While the relationships between these factors were consistently significant, the effect sizes varied greatly, indicating that co-occurring factors may also play important roles in student behavior, as detailed in the previous review of research related to student-teacher rapport.

In more than any other area, PBIS-related research has focused on PBIS' ability to reduce student referrals and suspensions when it is implemented with fidelity (Bradshaw et al., 2008; Kalke, Glanton, & Cristalli, 2007; Ryoo & Hong, 2011). It is worth noting that in some of these studies, schools were chosen to be the control group while others served as the treatment group, having PBIS implemented with training and support. Many of the control schools had expressed interest in implementing PBIS as well, and findings showed that they also experienced reductions in referrals and suspensions (Bradshaw et al., 2010; Netzel & Eber, 2003). This may be an indication that the readiness of school personnel and school culture to engage in a model like PBIS may also be a factor in changes in student referrals and suspensions. While the PBIS schools experienced the largest reductions in referrals and suspensions, the majority of control schools had similar reductions, though smaller in degree, and researchers found a school's readiness to embrace change an aspect worthy of future study as well.

Teachers' perceptions of student behavior play a unique role in both how PBIS is received and how PBIS can also affect teacher perceptions. In a qualitative study of kindergarten and first grade general education teachers' perceptions of student behaviors within their

classrooms, researchers found that teachers tended to consider behavior on an individual level, rather than a group or school-wide level (Tillery, Varjas, Meyers, & Collins, 2010). Interestingly, PBIS training for staff was offered to staff in this district during the study, though none of the participating teachers were aware of PBIS or had engaged in the training. A core component of PBIS is to communicate behavioral expectations and consider behavioral dynamics on a school-wide scale. This scale is complemented by the targeted and individual levels, with the intention that staff consider behavior on all three levels in assessing students' needs and skill levels.

PBIS implementation dynamics.

Researchers were able to examine the process and factors involved as the state of Maryland implemented PBIS in public elementary schools on a statewide scale (Bradshaw & Pas, 2011). In examining research trends in community psychology and organizational change, state education officials selected Adelman and Taylor's (1997) concepts of *Creating Readiness* and *Program Integration* as criteria for identifying schools that were most ready for successful implementation of SW-PBIS. Three hundred and sixteen elementary schools were chosen to implement PBIS, out of 810 schools. Researchers found that while school and district-level factors were significantly related to schools receiving training and adopting the PBIS program, only school-level factors played a role in the quality of PBIS implementation. Central among these building-level factors were the active support of administration, the staff's relationship with building administration, and willingness to adopt a PBIS approach to student behavior.

In 2002, New Hampshire began training its school personnel to support a statewide implementation of PBIS in the state's public schools, preschool – high school (Muscott, Mann, Benjamin, Gately, Bell, & Muscott, 2004). Schools were able to be trained and supported with

implementing PBIS in 15 out of the 28 schools included in the sample. Elem, preschool and multi-level schools were more able to successfully implement PBIS, within the duration of the study, as compared with middle and high schools. Schools were rated on their ability to put PBIS procedures, supports and practices in place at a rate of 80% completion within 3-4 months after PBIS was introduced to students, as measured by the School-wide Evaluation Tool (SET) (Sugai, Todd & Homer, 2001).

A study examining factors related to varying levels of success in schools' implementation of PBIS considered demographic variables in participating schools (Cohen, 2006). Findings from this study show that while demographic factors account for small variances in outcomes, more significant factors included functioning of the staff PBIS team, administrative support, and the self-efficacy of the PBIS coach supporting the school. Researchers found that the most helpful factor in the PBIS implementation process reported by a majority of participants was "Expectations and rules are clearly defined", while the item described as most problematic in this process was "Adequate funding for PBS (PBIS)".

Positive Action (PA) is a school-based program focused on reducing violent behaviors to self and others and enhancing pro-social and healthy behaviors, including positive behaviors and academic achievement (Beets, 2007). In this sense, PA shares several commonalities with PBIS in that it is intended to be school-wide, and attempts to reduce negative behaviors and increase positive behaviors among students. Researchers examined factors related to implementation in K-12 schools in Hawai'i (Beets, 2007). The study found that teachers' attitudes toward PA had a significant impact on the integrity of implementing PA, and that students' attitudes toward PA, as well as regarding negative and positive behaviors, did improve as a result of the PA program in their school. Findings also showed that teachers' attitudes had an influence on students'

attitudes regarding PA, the curriculum taught and behaviors being discouraged and encouraged. The researchers' central conclusion was that promoting and assessing schools' readiness through staff training and stakeholder involvement is important in achieving successful implementation of school-wide programs.

Organizational culture and change.

The purpose of this study is to investigate teachers' perceptions of student behavior and student-teacher rapport in terms of possible connections with PBIS implementation in their schools. This study's focus on teachers' perceptions warrants a closer review of research related to teachers' perceptions of organizational culture and change, particularly regarding dynamics specific to PBIS. This comes from a realization that teachers' perceptions and feelings are both influenced by, and an influence on, school culture. Adelman and Taylor's (1997) research concerned with organizational change suggests that schools' ability to adopt new programs is enhanced when those new programs are integrated with other systems or functional changes, whether new or pre-existing. The research reflects a pattern in which schools often adopt PBIS as one part of a broader motivation to change their overall procedures and practices in responding to student behavior issues (Cohen, 2006).

Others have drawn connections between PBIS and the practice of inclusion in schools, pointing to the need for planning and resources to be dedicated to providing resources for the top two tiers within the PBIS model (Freeman, Eber, Anderson, Irvin, Horner, Bounds, & Dunlap, 2006). Inclusion practices in education are meant to include students with varying abilities, as well as disabilities, in the mainstream learning environment with typically-functioning peers. These top two tiers, targeted and individual interventions, intersect with best practices within an inclusionary approach, namely wraparound services and person-centered planning (PCP)

(Freeman et al., 2006). This is a prime example of how PBIS can be integrated with an inclusion approach to education with mutual benefit to both models. When school culture already has components of inclusion or Response to Intervention (RTI) integrated into their practices, PBIS is likely to find an easier fit as staff see that it is congruent with practices they are already accustomed to (Bradshaw & Pas, 2011).

In a study designed to examine the extent to which PBIS may account for positive changes in the organizational health of schools, analysis of survey responses from 2,507 school staff found a significant relationship between PBIS implementation and those changes (Bradshaw et al., 2008). More specifically, after accounting for additional factors related to school culture and change, researchers identified two areas within schools' overall organizational health that were significantly impacted. These two areas were *resource influence*, which involves a building principal's ability to leverage district resources to support PBIS and school-based initiatives, and *staff affiliation*. Staff affiliation is defined as school staff's feelings of connection to each other, commitment to students, and collegial levels of trust and collaboration. Findings of this study indicated that because changes in overall school organizational health are significantly related with PBIS at a substantial effect size of .29, these changes may be a potential mediator of PBIS' effect on student performance.

In an effort to better understand factors that may function as barriers and enablers to PBIS implementation, Cohen (2006) surveyed 236 school personnel, measuring their perceptions of these factors. The researcher had three groups of participants complete the same survey, distinguished as staff and teachers, assistant principal, and principal. Among all three of these participant groups, findings were consistent in terms of what factors were most helpful and most problematic. Overall findings revealed that the item on the survey rated as most helpful in

implementing PBIS was “Expectations and rules are clearly defined”, while the factor rated most problematic was “Adequate funding for PBS”. It is interesting to note that the most helpful factor is one that is within teacher or building control, while the issue of funding is often one decided more at the district or state level. This finding may reflect others’ results that suggest that successful PBIS implementation is often dependent on the readiness of the institution to initiate change at the local level.

Staff job satisfaction and collaboration.

Alongside the research focused on the role of PBIS in school culture and change, shining a light on the aspects more specific to staff experience, based on teacher perceptions and behavior, is of particular interest to the author. This line of questioning and inquiry is important in developing a base of knowledge as to studies that have gone before in this area of staff perception of PBIS related to elements that impact their day to day work. In one such study, the researcher looked at staff’s ability to share data among themselves with accuracy in order to inform their practice with students (Upreti, 2009). Since using data to inform decision-making is a core practice integral to PBIS, this study looked at this aspect of PBIS in schools implementing PBIS in comparison to those not implementing PBIS to examine possible differences. In regards to the sharing of data, the study found statistically higher scores in PBIS schools as compared with non-PBIS schools. In order to account for demographic factors of individual schools, participants were randomly assigned to a school in one of four distinct conditions or settings, identified as ‘Rural, fringe’ ‘City, large’ ‘Suburb, large’ and ‘Town, remote’ (Upreti, 2009). Findings were consistent across all conditions, suggesting that even after demographic and urban settings are taken into account, PBIS practice accounts for a significant difference in the amount to which staff share data accurately in the process of decision-making.

Collins (2007) examined changes in middle school teachers' beliefs, values, and practices using a survey to measure differences associated with PBIS in their school. Findings reflected mixed results, with teachers indicating that the statement, "I have created more positive relationships among students" was *somewhat - mostly true*. In contrast, survey items that addressed teachers' perceptions of workplace safety with statements like, "The school is a safer, more orderly place to teach and learn than last year" and "I feel the chances of being physically abused by a student at this school has decreased" received significantly lower ratings from participants. In between these two extremes, teachers' indicated that the statement "there was an increase in trust and confidence between teachers and students" was *somewhat true* (Collins, 2007). These findings reflect the complicated nature of school culture and workplace dynamics for teachers, with the numerous factors involved when hundreds of students, teachers, and administrators with diverse backgrounds, interests, and goals come together each day to interact with curriculum and each other.

Hill's (2011) study examines faculty and staff perceptions of the PBIS Leadership Team and the PBIS process as it functions in schools. Faculty and staff utilized for this study were employed in primary and secondary schools in Louisiana that had implemented PBIS at least six months prior to survey completion. The *PBIS Staff Satisfaction Survey* (PBIS-SSS) and the *Team Process Survey* (PBIS-TPS) were utilized for the purpose of this study. Each instrument was a survey consisting of 20 Likert-scaled items. Hill gathered data across primary and secondary schools from 12,264 staff respondents using the PBIS-SSS and from 2,975 respondents using the PBIS-TPS. A total of 811 schools representing 46 parishes across Louisiana participated in the study, while 423 of those schools did not receive training by LAPBIS (Louisiana PBIS).

In measuring staff perceptions of school-wide dynamics related to PBIS implementation, the most positive ratings were in response to the statements '(PBIS) Team has a common vision' and

‘(PBIS) Team has common goals’, while the least positive ratings were in response to ‘There has been an increase in the number of community entities that support the school, with second lowest being in response to ‘I would like more training about PBIS strategies’. When primary and secondary staff shared their perceptions related to dynamics specific to their classroom or individual practice the item that received the highest level of agreement from primary school respondents was, ’I have positively stated classroom rules that align with the school-wide expectations posted and visible in my classroom’. The survey item that received the second highest level of agreement from respondents was, ‘School-wide expectations are posted and visible within my classroom’. The survey item with the consistently lowest level of agreement among both primary and secondary staff was, ‘School rules are consistently applied to everyone’.

While Hill’s (2011) findings show that both primary and secondary school staff indicated an overall positive level of satisfaction in regards to PBIS, primary school staff indicated higher levels of satisfaction with the PBIS process than secondary school staff in both the 2008-09 and 2009-10 school years. Data from this study reflected a widespread satisfaction on the part of school PBIS teams and showed that staff believe the PBIS teams tended to work together effectively and collaboratively in helping to implement, evaluate and revise PBIS interventions in the school. Participants’ areas of concern were relatively few and mostly centered on school rules not being consistently enforced by all staff, along with a lack of interest on the part of staff in further training about additional PBIS strategies. These perceptions may suggest a lack of confidence and rapport among staff, as well as a lack of ownership that staff feel around PBIS. Since this study was examining results from a statewide initiative, it may have evoked feelings from staff that the push for PBIS implementation was an idea that did not originate on the local level.

Student achievement.

Researchers who have looked beyond student behavior in terms of referrals and suspensions have put their efforts into measuring possible connections between PBIS and impacts on student achievement. In studies that have looked at both realms of student behavior, findings have shown that while PBIS seems to be associated with reductions in referrals and suspensions, PBIS has not shown the same positive impact on academic achievement or engagement (Bradshaw et al., 2010; Ryoo & Hong, 2011). Ryoo and Hong (2011) did find a slight effect in which PBIS accounted for improved math scores with fifth grade students. Unfortunately, no other studies have been able to find such a relationship between implementing PBIS and improvements in academic achievement or engagement.

PBIS was used as a model to develop Positive Behaviour for Learning (PBL) in schools in the Sydney, Australia area. PBL is basically an iteration of PBIS with more emphasis on academic and psychosocial learning (Yeung, Mooney, Barker & Dobia, 2009). These areas of emphasis unique to PBL focus on teaching students the skills to improve their academic engagement through instruction and rewards related to student motivation, organizational, and study skills. Researchers found that there was no significant connection between implementing PBL and improvement in these skills for students. In this same study, PBL implementation was found to significantly account for improvement in students' school self-concept, parent self-concept, English self-concept, and planning, though the effect size was very small, measured at .01. Since there are currently no studies that have found significant relationships between PBIS and improved academic achievement or engagement in a way that has been able to be replicated, further inquiry into connections between PBIS and factors associated with improved academic achievement and engagement would be valuable.

Conclusion

The rapport teachers are able to build with their students has been found to serve as a protective factor in helping students engage in behaviors associated with school success (Roorda et al., 2011). While the vast majority of studies looking at student-teacher rapport are occupied with the influence and possible enhancing effect it has on instruction, there is not a sufficient body of research considering the role student-teacher rapport and relationships play in preventing and addressing student behavior and discipline issues (Roache & Lewis, 2011). Adversely, the research on PBIS has mainly focused on connections with reductions in referrals and suspensions, with further directions of inquiry developing in the areas of school culture, teacher perception, and academic achievement (Bradshaw et al., 2008; Sugai & Horner, 2002; Yeung et al., 2009). The author seeks to explore this intersection where PBIS, student-teacher rapport, student behavior and teacher perception come together to inform one another.

Noddings and others call for schools to care is a powerful summons for educators, parents and community members as we each find ourselves invested in the lives of our children and their education (Noddings, 2006). She asserts that schools are not fulfilling their role in serving children and the community if they educate them, but fail to care for them throughout the years from kindergarten to graduation, and this carries particular relevance in this discussion as to how we care for and equip our children, socially, emotionally and cognitively. PBIS takes a consistently preventative approach to behavior and emphasizes the positive in how teachers respond to students' needs and behavior (Horner et al., 2005). In this call for schools to care, both PBIS, student-teacher rapport, and teacher perception have gifts to offer as educators work to compose a more complete framework of what it looks like to educate the whole child (Kalke et al., 2007; King & Chan, 2011). While these parallel strains in the current literature have

developed concurrently, an examination of how PBIS may play a role in student-teacher rapport is not only timely but needed in helping us to better understand how these dynamics influence each other. The author seeks to further these connections and enhance teaching practice with findings that may shed light on practices that increase positive outcomes for students, centering around the hope that our students become not only productive citizens, but caring people as they grow and learn about the world around them.

Chapter 3

Methods

Introduction

The purpose of this study was to investigate teachers' perceptions of student behavior and student-teacher rapport and possible connections with PBIS implementation in their schools. This study used a survey approach to gather perceptions of elementary teachers across the participating school district as well as participant demographic information. The demographic information highlights possible differences in perception based on gender, job placement in a Title I or non-Title I school, years of teaching experience, and teacher perception of the fidelity as to which PBIS was implemented in her or his school. The fundamental questions of this study were:

1. Are there any significant relationships between gender, grade level taught, years of experience teaching, placement in Title I or non-Title I schools, years PBIS has been implemented in participants' school, perception of implementation of PBIS, and teacher perception of changes in student behavior and student-teacher rapport?
2. Is there a relationship between teachers' perceptions of PBIS effect on student behavior and student-teacher rapport?

Setting

The setting for this study was a school district in a suburban area of the state of Oregon. While the area was predominantly a farming community historically, it has grown substantially in the last 30 years, and it is now home to a large concentration of industries that provide employment for much of the area. The district served over 20,000 students in the 2011-12 school year, with 25 elementary schools (K-6), four middle schools (7-8), four high schools (9-

12), as well as two alternative education programs, for a total of 35 schools. Eleven of the 25 elementary schools are designated as Title I schools, and receive additional funding and resources to enhance the learning of students coming from challenging circumstances associated with Title I designation. Title I designation and resourcing is discussed further in chapter four.

The district is formed into feeder groups, in which 6-7 elementary schools feed students into one large middle school, which in turn feeds into the high school. A main effect of this feeder model is that many students who progress through these schools will have attended school with a consistent cohort of their peers throughout their K-12 career. The population of students served by the district has changed in recent years, and the current ethnic diversity of students served by the district is 33% Latino/Latina, 53% White, 7% Asian/Pacific Islander, and just over 3% identifying as Multi-ethnic. African American and American Indian students comprise about 3% of the student population.

Participants and Sampling

Eligible participants were teachers and certified staff from 25 elementary schools within the participating district in western Oregon. Certified staff in this study are defined as specialists, including music, special education, and PE teachers, counselors, and speech therapists. Each of these specialists not only have contact with students in small group contexts, but also interact with students in the classroom environment, either through whole class instruction, or supporting specific learners in the classroom. Since SW-PBIS is a school-wide model, and all staff are knowledgeable and responsible for implementing PBIS in their work with students. This responsibility carries into classroom instruction, whether in large or small group contexts. In regards to student-teacher rapport, all specialists must develop and maintain

relationships with students, either as the primary instructor, or in providing services and instruction throughout the school.

With a participant pool of 582 elementary teachers and certified staff, the researcher worked to maximize the sample size for the study by working with the district to communicate the opportunity for participation in this study with eligible teachers and certified staff. Prior to emails or surveys being sent out, the researcher first met with the district administrator providing supervision for the elementary schools in the district to discuss the focus and nature of the study, possible benefits of the findings for the district, and how best to contact participants. After receiving approval from the participating school district, as well as George Fox University's Institutional Review Board and the researcher's dissertation committee, the researcher sent an initial email to elementary certified staff and teachers providing information about the study and survey, how participants can give consent and obtain additional information from the researcher, and a link to complete the survey. Three business days later, the researcher followed up with a second email to remind participants of the survey. This email contained the same information as the first email, along with thanking those who had already participated, and reminding those who had not participated yet that the survey would remain open for one more week. Four business days later, a third email was sent, with the same information about the study, survey, and consent, along with thanking those who had participated, and providing a link to participate for those had not yet.

In selecting the participants for this study, the researcher chose to focus on elementary teachers within one school district for the following reasons:

- PBIS can look substantially different when implemented in an elementary school compared with a high school. For instance, how school rules and norms are

communicated to students and parents can be very different and the rules themselves may be quite different in how they are enforced, as well as the role students play in that process.

- While PBIS was currently implemented in the neighboring districts around the participating district, each district's method of implementing PBIS in their schools is unique. From the resources and focus that a district dedicates to its implementation of PBIS, to its level of consistency and fidelity as it implements PBIS as a school-wide approach, there will be a wide range of approaches to this, and this variance in approach would be difficult to account for in a study that spanned across multiple districts.
- The researcher was interested specifically in the school culture and dynamics related to PBIS implementation in elementary schools, and the reciprocal impact that teachers' experience might add to those school dynamics.

Research Design

This was a quantitative study measuring teacher demographics and teacher perceptions related to PBIS implementation in the participant's school, for the purpose of examining perceived changes in student behavior and student-teacher rapport. Correlation analysis was used to determine whether and how variables were related. This study engaged in primary research with appropriate statistical procedures. The survey used for this study was developed and administered by the researcher. The intent of the survey was to collect data during November-December 2012 in order to analyze teacher demographics and perceptions related to PBIS, student behavior, and student-teacher rapport. The 19 items addresses the multiple variables as described in the 'Operationalization of Variables' section.

The researcher used six independent variables and two dependent variables for analysis. Thirteen hypotheses were identified and tested using appropriate statistical analysis, including zero-order correlation, regression, ANOVA, and *t*-tests. While Pearson's correlation and regression were used to identify general relationships between variables, ANOVA was used to examine connections between variables including years of teaching experience, years of PBIS implementation, and grade level currently being taught. In addition, *t*-Tests were utilized to see if there were any significant differences in survey responses based on gender and job placement in Title I or non-Title I schools.

Research Ethics

The researcher disclosed the purpose and scope of the study to participants prior to any data collection and provided contact information regarding how to get answers to questions they may have. Consent was sought and gathered with a Statement of Consent included at the beginning of the online survey, as found in Appendix A. Before participating teachers began the survey, they were required to give their consent for their participation as well as consent for the researcher's use of their responses in the sample data and findings.

The researcher followed George Fox University's (GFU) policies and practices regarding receiving approval for this study from the university's Institutional Review Board (IRB) using the GFU Institutional Review Form. Approval from the IRB was received prior to any collection or analysis of data. The researcher also received approval and consent from the appropriate district personnel in regards to district policies related to research and student, staff and district confidentiality. The researcher followed all relevant policies in conducting this study.

The survey design preserved participants' confidentiality by not gathering identifying information related to participant identity, specific school identity, and participant data were also

collected using Survey Monkey in a manner that does not divulge the identity of any participants. The confidentiality of the participants was preserved by using non-identifiable coding strategies to ensure that no participants were individually identified. The researcher took extra care to protect the participants' privacy and identities' by withholding indirect information that may identify them. Demographic data collected such as years of experience, gender, or any other identifying information was analyzed and stored in ways that protect the privacy and confidentiality of the participants. Data collected from this study in hard copy are safeguarded in locked storage in the researchers' office. Digital copies of this data are also kept on the researcher's personal computer, as well as on a backup hard drive in the researcher's office.

Instrumentation

Data were gathered using the PBIS Behavior and Rapport Survey-Staff (PBIS-BRSS) (see Appendix B), as designed by the researcher for this study. The instrument was piloted with a smaller participant sample (N=8) of elementary teachers from neighboring districts to the participating district. This pilot sample was not included in the study sample. Survey data and feedback from pilot participants were used to improve the clarity of the survey questions in order to promote reliability and validity. The PBIS-BRSS showed a high level of internal consistency reliability with a Cronbach's Coefficient Alpha score of .784 among survey items #6-8 measuring teacher perception of PBIS implementation, a score of .834 for survey items #9-13 measuring teacher perception of PBIS impact on student behavior, and a score of .834 for survey items #14-19 measuring teacher perception of PBIS impact on student-teacher rapport. Tables 1, 2, and 3 contain the reliability coefficients, survey items, and response scales for each section of the PBIS-BRSS.

Table 1

Scales and Reliability Coefficients: Perception of PBIS implementation.

Perception of PBIS Implementation Fidelity Scale (Reliability = .784)

6. Our administration actively supports PBIS.

    1 = Strongly Disagree
    2 = Disagree
    3 = Neutral
    4 = Agree
    5 = Strongly Agree

7. Our school has implemented PBIS consistently.

    1 = Strongly Disagree
    2 = Disagree
    3 = Neutral
    4 = Agree
    5 = Strongly Agree

8. I have implemented PBIS consistently in my classroom.

    1 = Strongly Disagree
    2 = Disagree
    3 = Neutral
    4 = Agree
    5 = Strongly Agree

Table 2
Scales and Reliability Coefficients: PBIS impact on student behavior.

Perception of PBIS and Student Behavior Scale (Reliability = .834)

9. Since implementing PBIS, our students are more respectful.
   1 = Strongly Disagree
   2 = Disagree
   3 = Neutral
   4 = Agree
   5 = Strongly Agree

10. Since implementing PBIS, our students are less disruptive.
   1 = Strongly Disagree
   2 = Disagree
   3 = Neutral
   4 = Agree
   5 = Strongly Agree

11. What impact has PBIS had on student behavior in your school?
   1 = Very Negative
   2 = Negative
   3 = Mixed
   4 = Positive
   5 = Very Positive

12. What impact has PBIS had on student behavior in your class?
   1 = Very Negative
   2 = Negative
   3 = Mixed
   4 = Positive
   5 = Very Positive

13. My students respond positively to directions.
   1 = Strongly Disagree
   2 = Disagree
   3 = Neutral
   4 = Agree
   5 = Strongly Agree

Table 3

Scales and Reliability Coefficients: PBIS impact on student-teacher rapport.

Perception of PBIS and Student-teacher Rapport Scale (Reliability = .834)

14. I would characterize student-teacher relationships in our school as:
    - 1 = Very Negative
    - 2 = Negative
    - 3 = Mixed
    - 4 = Positive
    - 5 = Very Positive

15. I would characterize student-teacher relationships in my classroom as:
    - 1 = Very Negative
    - 2 = Negative
    - 3 = Mixed
    - 4 = Positive
    - 5 = Very Positive

16. PBIS has improved student-teacher relationships.
    - 1 = Strongly Disagree
    - 2 = Disagree
    - 3 = Neutral
    - 4 = Agree
    - 5 = Strongly Agree

17. With PBIS, students are more receptive to positive staff interaction.
    - 1 = Strongly Disagree
    - 2 = Disagree
    - 3 = Neutral
    - 4 = Agree
    - 5 = Strongly Agree

18. PBIS has made it easier to maintain positive relationships with students.
    - 1 = Strongly Disagree
    - 2 = Disagree
    - 3 = Neutral
    - 4 = Agree
    - 5 = Strongly Agree

19. PBIS has played the following role in our school with student-teacher relationships:
    - 1 = Very Negative
    - 2 = Negative
    - 3 = No role
    - 4 = Positive
    - 5 = Very Positive

Operationalization of Variables

All variables were measured using scales that were created using survey items #1-6 (see below). Independent and dependent variables were operationalized and measured as follows:

Independent Variables –

1. Gender (G) – The score on a nominal scale on one survey question.
2. Grade Level Taught (GLT) – The score from one survey question.
3. Years of Teaching Experience (YTE) – The score from one survey question.
4. Title I School-place of work (TI) – The score from one survey question.
5. Years of PBIS Implementation (YPI) – The score from one survey question.
6. Teacher Perception of PBIS Implementation (TP-PBIS) – The score on a scale created by combining three survey questions.

Dependent Variables –

1. Teacher Perception of Student Behavior (TP-SB) – Measured using participant responses from five Likert-scaled survey questions.
2. Teacher Perception of Student-Teacher Rapport (TP-STR) – Measured using participant responses from six Likert-scaled survey questions.

Data Collection and Analysis

This study employed a survey approach, collecting data through the use of an online survey. The online questionnaire is comprised of 19 questions (Table 1). The complete survey with response scales can be found in Appendix B. Data collected were sorted and analyzed using Microsoft Office Excel and SPSS. Statistical analysis included t-test, ANOVA, zero-order correlation, and regression using the data set gained from participant surveys. The units of

analysis are elementary teachers across the 25 elementary schools in the participating school district. Surveys were sent out to teachers in each of these 25 schools, in the interest of getting the largest sample size possible from the participant pool of 582 teachers. These teachers all work in K-6 elementary schools in the same district, so the main demographic variations addressed in this study were gender, years of teaching experience, Title I or non-Title I school placement, grade level currently taught, and years that PBIS has been implemented in her/his building.

Table 4
Survey items, variables, and analyses.

Independent Variables	**Dependent Variables**	**Data Analysis**
Demographics (# 1-5)	**Student Behavior (# 9-13)**	
1. Gender	9. Since implementing PBIS, our students are more respectful.	Correlation (Items #6-8 as scale)
2. Current Grade Taught	10. Since implementing PBIS, our students are less disruptive.	t-Test (Items #1, #4)
3. Years Teaching	11. What impact has PBIS had on student behavior in your school?	ANOVA (Items #2, 3, 5)
4. Title I or non-Title I	12. What impact has PBIS had on student behavior in your class?	Regression (Items #6-8 as scale)
5. Years of PBIS in School	13. My students respond positively to directions.	
Perception of PBIS Implementation in School (# 6-8)	**Student-teacher Rapport (#14-19)**	
6. School Admin actively supports PBIS	14. I would characterize student-teacher relationships in our school as:	
7. School Implements PBIS Consistently	15. I would characterize student-teacher relationships in my classroom as:	
8. PBIS Impl. In my Class	16. PBIS has improved student-teacher relationships.	
	17. With PBIS, students are more receptive to positive staff interaction.	
	18. PBIS has made it easier to maintain positive relationships with students.	
	19. PBIS has played the following role in our school with student-teacher relationships:	

Note: Survey items (#) on *PBIS Behavior and Rapport Staff Survey (PBIS-BRSS)* located in Appendix B.

Role of the Researcher

The researcher was invested in the successful completion of this study as part of completing an EdD program. This study's findings were reported in the researcher's dissertation within the context of this EdD program. The researcher's knowledge of the school district in this study comes as a district employee, working in one of the elementary schools in the participating district. The researcher did not participate in the survey, and none of the participants had any significant relationship, participation, or knowledge of the research prior to surveys being conducted. His investment in this area of study and in the successful completion also stems from a desire to find data that will be useful in improving services for students served by the district. The researcher is the principal investigator of this study.

Potential Contributions of the Research

While much work has been done in showing the effectiveness of school-wide positive behavior supports in terms of reducing rates of problematic student behavior, this has been consumed much of the research done surrounding PBIS. This is most commonly measured in terms of reduced office referrals and other data related to trends in student behavior. While reducing the frequency and severity of student behaviors is certainly a worthwhile goal, this study may enhance our understanding of correlations PBIS may have with the actual quality of connection and relationships known as student-teacher rapport or student-teacher relationships. The results could also have implications for the training and professional development that teachers and school personnel have access to regarding PBIS practices and instructional strategies that promote positive rapport between students and teachers. Relational aspects of effective instruction may also be enhanced by integrating quality instruction with interpersonal strategies that develop trust and collaboration in the classroom.

Chapter 4

Results

Introduction

The purpose of this study was to investigate teachers' perceptions of student behavior and student-teacher rapport and possible connections with PBIS implementation in their schools. Data were analyzed from the self-administered survey associated with this study and completed by elementary teachers and certified staff in the participating school district. The survey was sent to 582 certified staff, with 189 of those participants participating in the survey, resulting in a 32% response rate. Partially completed surveys (14) were excluded from analysis, resulting in a sample size of N=175 and a completion rate of 30%. This study used a 19 item self-administered survey to gather data related to elementary teachers' perception of PBIS implementation in her/his school, possible impacts of PBIS on student behavior, as well as on student-teacher rapport. Survey items were developed to measure data related to the hypotheses guiding this research. The following research questions provided direction as the survey was developed to measure salient issues related to those perceptions:

1. Are there any significant relationships between gender, grade level taught, years of experience teaching, placement in Title I or non-Title I schools, years PBIS has been implemented in participants' school, perception of implementation of PBIS, and teacher perception of changes in student behavior and student-teacher rapport?
2. Is there a relationship between teachers' perceptions of PBIS effect on student behavior and student-teacher rapport?

Data Analysis

t-Test

Using t-Test analysis, the researcher analyzed possible variances in the dependent variable of teacher perception of student behavior measured in survey items #9-13 and in the dependent variable of teacher perception of student-teacher rapport measured in survey items #14-19, in relation to independent variables measured by the following survey items:

- What is your gender?
- Are you working in a Title I or non-Title I school?

ANOVA

Using ANOVA, the researcher analyzed possible variances in the dependent variable of teacher perception of student behavior measured in survey items #9-13 and in the dependent variable of teacher perception of student-teacher rapport measured in survey items #14-19, in relation to independent variables measured by the following survey items:

- What grade do you currently teach?
- I have been teaching for __ years.
- Our school has been a PBIS school for __ years.

Correlation and regression

Using Pearson's Correlation and regression, the researcher analyzed possible connections between dependent variables teacher perception of PBIS impact on student behavior measured in survey items #9-13 and teacher perception of PBIS impact on student-teacher rapport #14-19 and independent variables measuring teacher perception of PBIS implementation with the following survey items:

- Our school administration actively supports PBIS.

- Our school has implemented PBIS consistently.
- I have implemented PBIS consistently in my classroom.

Sample Demographics

The unique demographics of the study sample are important to be aware of as one considers the study's findings and implications of those findings, including the extent to which they may be inferred across a larger population of teachers' perceptions of PBIS. Table 5 illustrates the breakdown of demographic traits according to the study's sample.

Table 5

Participant responses by variable and subgroup.

Gender	**Female**	**Male**	**Total**				
N	159	16	175				
Percent of *N*	90.90%	9.10%	100%				
Current Grade	**Kg**	**Gr 1**	**Gr 2**	**Gr 3**	**Gr 4**	**Gr 5**	**Gr 6 & K-6 Specialists**
N	15	17	24	20	27	16	56
Percent of *N*	8.60%	9.70%	13.70%	11.40%	15.40%	9.10%	32.00%
Teaching for ____ Yrs	**0-3 yrs**	**4-7 yrs**	**8-12 yrs**	**13-17 yrs**	**18+ yrs**		
N	11	31	37	35	61		
Percent of *N*	6.30%	17.70%	21.10%	20.00%	34.90%		
Title I or Non	**Title I**	**Non-Title I**					
N	74	101					
Percent of *N*	42.30%	57.70%					
PBIS School for __ Yrs	**1 Yr**	**2 Yrs**	**3 Yrs**	**4 yrs**	**5+ Yrs**		
N	0	2	22	42	109		
Percent of *N*	0	1.10%	12.60%	24.00%	62.30%		
Perception of PBIS Implementation	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**		
Our school administration actively supports PBIS	(110) 62.9%	(54) 30.9%	(7) 4.0%	(2) 1.1%	(2) 1.1%		
Our school has implem. PBIS consistently	(58) 33.1%	(96) 54.9%	(10) 5.7%	(8) 4.6%	(3) 1.7%		
I have implemented PBIS consistently in my class	(60) 34.3%	(98) 56.0%	(13) 7.4%	(4) 2.3%	0		

Hypotheses and Primary Findings

Hypothesis 1 and Findings: Gender and Student Behavior

***H_1*:** There will not be a significant difference in teacher perception of student behavior based on gender.

***F_1*:** There was not a significant difference in teacher perception of student behavior based on gender.

Student behavior

An independent-samples t-test was conducted to compare the perceptions of female and male elementary teachers in the participating school district regarding possible impacts on student behavior related to PBIS. There was no significant difference in perceptions for female (M=10.56, SD=2.64) and male (M=10.56, SD=2.97) elementary teachers; t (173) = -.004, p = 0.997. These results suggest that gender is not a significant predictor of teachers' perception of impacts on student behavior related to PBIS.

Hypothesis 2 and Findings: Gender and Student-teacher Rapport

***H_2*:** There will not be a significant difference in teacher perception of student-teacher rapport based on gender.

***F_2*:** There was not a significant difference in teacher perception of student-teacher rapport based on gender.

Student-teacher rapport

An independent-samples t-test was conducted to compare the perceptions of female and male elementary teachers in the participating school district regarding possible impacts on student-teacher rapport related to PBIS. There was no significant difference in perceptions for female (M=11.61, SD=2.98) and male (M=11.56, SD=3.76) elementary teachers; t (173) =.059,

p = 0.953. These results suggest that gender is not a significant predictor of teachers' perception of impacts on student-teacher rapport related to PBIS. These findings related to student behavior and student-teacher rapport are also reflected in Table 6.

Table 6
t-Test: Gender and perception of PBIS impact on student behavior and rapport.

Perception of PBIS impact on student behavior.					
Gender	*p* (2-tailed)	*t*	N	Mean	SD
Female	n.s.	-0.004	159	10.559	2.638
Male			16	10.562	2.966
Perception of PBIS impact on student-teacher rapport.					
Gender	*p* (2-tailed)	*t*	N	Mean	SD
Female	n.s.	0.059	159	11.61	2.979
Male			16	11.563	3.759

Hypothesis 3 and Findings: Current Grade Taught and Student Behavior

***H_3*:** There will not be a significant difference in teacher perception of student behavior based on current grade taught.

***F_3*:** There was not a significant difference in teacher perception of student behavior based on current grade taught.

Hypothesis 4 and Findings: Current Grade Taught and Student-teacher Rapport

***H_4*:** There will not be a significant difference in teacher perception of student-teacher rapport based on current grade taught.

***F_4*:** There was not a significant difference in teacher perception of student-teacher rapport based on current grade taught.

Using ANOVA, the researcher found that the survey item “What grade do you currently teach?” was not a significant variable in participants’ perceptions regarding PBIS impact on student behavior or PBIS impact on student-teacher rapport.

Student behavior

An ANOVA was conducted to compare the effect of current grade taught on perceptions of PBIS related to student behavior, based on participants’ responses of highest grade currently taught as kindergarten (kg), grade 1, grade 2, grade 3, grade 4, grade 5, or grade 6. There was no significant difference in perceptions of PBIS related to student behavior based on current grade taught [$F(6, 168) = 1.039$, $p = 0.402$]. Post hoc comparisons using the Tukey test indicated that the mean for teachers at the kindergarten level ($M = 9.53$, $SD = 3.44$), grade 1 level ($M = 10.41$, $SD = 1.94$), grade 2 level ($M = 10.71$, $SD = 2.48$), grade 3 level ($M = 10.75$, $SD = 3.18$), grade 4 level ($M = 11.48$, $SD = 2.93$), grade 5 level ($M = 10.56$, $SD = 2.58$), and grade 6 level ($M = 10.30$, $SD = 2.36$) was not significantly different among teachers currently teaching these respective grade levels. Taken together, we can conclude that perceptions of PBIS related to student behavior do not differ significantly based on years of teaching experience.

Student-teacher rapport

An ANOVA was conducted to compare the effect of current grade taught on perceptions of PBIS related to student-teacher rapport, based on participants’ responses of highest grade currently taught as kindergarten (kg), grade 1, grade 2, grade 3, grade 4, grade 5, or grade 6. There was no significant difference in perceptions of PBIS related to student behavior based on current grade taught [$F(6, 168) = .936$, $p = 0.470$]. Post hoc comparisons using the Tukey test indicated that the mean for teachers at the kindergarten level ($M = 10.4$, $SD = 3.11$), grade 1 level ($M = 11.94$, $SD = 3.07$), grade 2 level ($M = 11.67$, $SD = 3.29$), grade 3 level ($M = 11.25$,

SD = 3.32), grade 4 level (M = 12.56, SD = 2.79), grade 5 level (M = 11.31, SD = 2.94), and grade 6 level (M = 11.55, SD = 2.97) was not significantly different among teachers currently teaching these respective grade levels. Taken together, we can conclude that perceptions of PBIS related to student-teacher rapport do not differ significantly based on years of teaching experience.

These findings related to current grade taught can also be found in Table 7, providing additional data in regards to sum of squares, *N* for each participant subgroup, and mean square.

Table 7
ANOVA: Current grade taught, PBIS impact on student behavior, and rapport.

Teacher Perception of PBIS impact on student behavior.

Current Grade Taught	p (2-tailed)	F	N	Mean	SD		Sum of Squares	df	Mean Square
Kg			15	9.53	3.44	Between Groups	44.043	6	7.341
Grade 1			17	10.41	1.94				
Grade 2			24	10.71	2.48	Within Groups	1187.08	168	7.07
Grade 3	n.s.	1.039	20	10.75	3.18				
Grade 4			27	11.48	2.93				
Grade 5			16	10.56	2.58				
Grade 6			56	10.3	2.36				
Total			175	10.56	2.66	Total	1231.12	174	

Teacher Perception of PBIS impact on student-teacher rapport.

Current Grade Taught	p (2-tailed)	F	N	Mean	SD		Sum of Squares	df	Mean Square
Kg			15	10.4	3.11	Between Groups	52.226	6	8.7
Grade 1			17	11.94	3.07				
Grade 2			24	11.67	3.29	Within Groups	1561.57	168	9.30
Grade 3	n.s.	0.936	20	11.25	3.32				
Grade 4			27	12.56	2.79				
Grade 5			16	11.31	2.94				
Grade 6			56	11.55	2.97				
Total			175	11.61	3.05	Total	1613.79	174	

While there were no significant variances in participant response based on this distinction of current grade taught, it is worth noting that those participating in the study included classroom teachers in grades kindergarten through sixth grade, as well as certified specialists including music, PE, and special education teachers, counselors, instructional coaches, and speech language pathologists. All these certified positions fall under the description of elementary

certified staff, and are also responsible for providing supervision, specialized services, and instruction to students, whether in 1:1, small group, or whole classroom contexts. They are also involved in the implementation of SW-PBIS, and responsible for maintaining an awareness of PBIS-related policies and practices in their buildings.

Participants were instructed in the survey to indicate the current grade they were teaching based on the highest grade they taught at the time of the survey. For teachers currently teaching a grade 3-4 split class, they would indicate grade 4, and for specialists that serve students across the k-6 spectrum, they would select grade 6 as current grade taught. This created a higher concentration of teachers indicated at the grade 6 level, as well as smaller concentrations at the grade 1 and grade 3 levels which may be due to a number of grade 1-2 and grade 3-4 split classrooms across the district's elementary schools.

Hypothesis 5 and Findings: Title I and Student Behavior

***H_5*:** There will be a significant difference in teacher perception of student behavior based on job placement in a Title I school.

***F_5*:** There was not a significant difference in teacher perception of student behavior based on job placement in Title I schools.

Hypothesis 6 and Findings: Title I and Student-teacher Rapport

***H_6*:** There will be a significant difference in teacher perception of student-teacher rapport based on job placement in a Title I school.

***F_6*:** There was not a significant difference in teacher perception of student-teacher rapport based on job placement in a Title I school.

The researcher hypothesized that this distinction of Title I school placement may affect teachers' perception of PBIS in terms of student behavior and/or student-teacher rapport because

of the different challenges and resources present in Title I schools. Schools are designated as Title I based on the number of children from low-income families in their population. This designation originated from the No Child Left Behind Act of 2001 (2001), with the goal of providing differential support to schools facing increased challenges. In the participating district, Title I schools "receive additional funding for programs and services designed to improve learning opportunities for eligible students" ("Title I," n.d.). Within the participating district, most Title I schools were also among the first schools to implement SW-PBIS, so there is some crossover with the variable regarding how many years a school has implemented PBIS.

The study's findings failed to support the acceptance of hypotheses five and six, and instead indicated that the distinction of Title I is not a significant variable in teachers' perception of PBIS impact on student behavior or student-teacher rapport, as indicated in Table 5 below.

Student behavior

An independent-samples t-test was conducted to compare the perceptions of elementary teachers working in Title I and non-Title I schools regarding possible impacts on student behavior related to PBIS. There was no significant difference in perceptions for teachers working in Title I (M=10.70, SD=2.41) and non-Title I (M=10.46, SD=2.83) schools; t (173) =.606, p = 0.545. These results suggest that Title I job school placement is not a significant predictor of teachers' perception of impacts on student behavior related to PBIS.

Student-teacher rapport

An independent-samples t-test was conducted to compare the perceptions of elementary teachers working in Title I and non-Title I schools regarding possible impacts on student-teacher rapport related to PBIS. There was no significant difference in perceptions for Title I (M=11.73, SD=2.9) and non-Title I (M=11.51, SD=3.16) elementary teachers; t (173) =.460, p = 0.646.

These results suggest that Title I job school placement is not a significant predictor of teachers' perception of impacts on student-teacher rapport related to PBIS.

Table 8
t-Test: Title I/non-Title I school teachers, student behavior, and rapport.

Variable	School Placement	*p* (2-tailed)	*t*	N	Mean	SD
Student behavior	Title I	n.s.	0.606	74	10.703	2.414
	Non-Title I			101	10.455	2.834
Student-teacher rapport	Title I	n.s.	0.46	74	11.73	2.897
	Non-Title I			101	11.515	3.161

Hypothesis 7 and findings: Years of Teaching Experience and Student Behavior

***H_7*:** There will be a significant difference in teacher perception of student behavior based on years of teaching experience.

***F_7*:** There was not a significant difference in teacher perception of student behavior based on years of teaching experience.

Hypothesis 8 and findings: Years of Teaching Experience and Student-teacher Rapport

***H_8*:** There will be a significant difference in teacher perception of student-teacher rapport based on years of teaching experience.

***F_8*:** There was not a significant difference in teacher perception of student-teacher rapport based on years of teaching experience.

This variable is the distinction that best indicates teachers' experience in their profession, and it is of particular interest because of the relatively new presence of PBIS in schools over the last 10+ years as a school-wide approach to student behavior that calls for school-wide staff

participation. The researcher was interested to find if this survey item of "I have been teaching for __ years." would play a substantial role in teachers' perception of PBIS, since PBIS may be the only model new teachers have ever used, while veteran teachers may have had exposure and experience with multiple models and approaches to student discipline and motivation.

Student behavior

An ANOVA was conducted to compare the effect of years of teaching experience on perceptions of PBIS related to student behavior, based on participants' responses of having taught 0-3 years, 4-7 years, 8-12 years, 13-17 years, or 18+ years. There was no significant difference in perceptions of PBIS related to student behavior based on years of teaching experience [$F(4, 170) = .636$, $p = 0.637$]. Post hoc comparisons using the Tukey test indicated that the mean for teachers with 0-3 years of experience ($M = 10.0$, $SD = 2.14$), 4-7 years of experience ($M = 10.35$, $SD = 2.38$), 8-12 years of experience ($M = 10.51$, $SD = 2.42$), 13-17 years of experience ($M = 10.26$, $SD = 2.43$), and 18+ years of experience ($M = 10.97$, $SD = 3.12$) was not significantly different among teachers with these varying levels of experience. Taken together, we can conclude that perceptions of PBIS related to student behavior do not differ significantly based on years of teaching experience.

Student-teacher rapport

An ANOVA was conducted to compare the effect of years of teaching experience on perceptions of PBIS related to student-teacher rapport, based on participants' responses of having taught 0-3 years, 4-7 years, 8-12 years, 13-17 years, or 18+ years. There was no significant difference in perceptions of PBIS related to student-teacher rapport based on years of teaching experience [$F(4, 170) = 1.565$, $p = 0.186$]. Post hoc comparisons using the Tukey test indicated that the mean for teachers with 0-3 years of experience ($M = 11.0$, $SD = 2.0$), 4-7 years

of experience (M = 10.94, SD = 2.66), 8-12 years of experience (M = 11.51, SD = 3.14), 13-17 years of experience (M = 11.2, SD = 2.95), and 18+ years of experience (M = 12.34, SD = 3.30) was not significantly different among teachers with these varying levels of experience. Taken together, we can conclude that perceptions of PBIS related to student-teacher rapport do not differ significantly based on years of teaching experience. These findings are further illustrated in Table 9.

Table 9
ANOVA: Years of teaching and teacher perception of student behavior rapport.

Student Behavior	*p* (2-tailed)	F	N	Mean	SD		Sum of Squares	df	Mean Square
Years Teaching									
0-3 yrs			11	10	2.14	Between Groups	18.16	4	4.54
4-7 yrs			31	10.35	2.37				
8-12 yrs	n.s.	0.636	37	10.51	2.42	Within Groups	1212.96	170	7.14
13-17 yrs			35	10.26	2.43				
18+ yrs			61	10.97	3.12				
Total			175	10.56	2.66	Total	1231.12	174	

Student-teacher Rapport	*p* (2-tailed)	F	N	Mean	SD		Sum of Squares	df	Mean Square
Years Teaching									
0-3 yrs			11	11	2	Between Groups	57.31	4	14.33
4-7 yrs			31	10.94	2.65				
8-12 yrs	n.s.	1.565	37	11.51	3.14	Within Groups	1556.49	170	9.16
13-17 yrs			35	11.2	2.95				
18+ yrs			61	12.34	3.3				
Total			175	11.61	3.05	Total	1613.79	174	

Hypothesis 9 and Findings: Years of PBIS Implementation and Student Behavior

***H_9*:** There will be a significant difference in teacher perception of student behavior based on years of PBIS implementation in teacher's school.

***F_9*:** There was not a significant difference in teacher perception of student behavior based on years of PBIS implementation in teacher's school.

Hypothesis 10 and Findings: Years of PBIS Implementation and Student-teacher Rapport

***H_{10}*:** There will be a significant difference in teacher perception of student-teacher rapport based on years of PBIS implementation in teacher's school.

***F_{10}*:** There was a significant difference in teacher perception of student-teacher rapport based on years of PBIS implementation in teacher's school.

The researcher was interested in the effect that the years of PBIS implementation may have on teachers' perception of student behavior and student-teacher rapport in their school. ANOVA was used to analyze participants' responses regarding years of PBIS implementation as a significant factor in teacher perception of PBIS impact on student behavior and student-teacher rapport. This factor addressing how long a school has been implementing SW-PBIS may offer insights as to whether teacher perception of PBIS' impact on student behavior and student-teacher rapport is influenced by that school's length of experience with PBIS implementation. Please note that while participants were able to select from 1 year, 2 years, 3 years, 4 years and 5+ years, no participants selected 1 year. As illustrated in table 10, years of PBIS implementation was found to be a significant variable in teachers' perception of PBIS' impact on student-teacher rapport.

Student behavior

An ANOVA was conducted to compare the effect of years of PBIS implementation on perceptions of PBIS related to student behavior, based on participants' responses of having taught 2 years, 3 years, 4 years, or 5 years or more. There was no significant difference in perceptions of PBIS related to student behavior based on years of teaching experience [$F(3, 171) = .773$, $p = 0.511$]. Post hoc comparisons using the Tukey test indicated that the mean for teachers with 2 years ($M = 12.5$, $SD = 2.12$), 3 years ($M = 11.0$, $SD = 2.05$), 4 years ($M = 10.71$, $SD = 2.24$), and 5 years or more ($M = 10.38$, $SD = 2.91$) of PBIS implementation was not significantly different among participants. Taken together, we can conclude that perceptions of PBIS related to student behavior do not differ significantly based on years of teaching experience.

Student-teacher rapport

An ANOVA was conducted to compare the effect of years of PBIS implementation on perceptions of PBIS related to student-teacher rapport, based on participants' responses of having taught 2 years, 3 years, 4 years, or 5 years or more. There was no significant difference in perceptions of PBIS related to student behavior based on years of teaching experience [$F(3, 171) = 3.801$, $p = 0.011$]. Post hoc comparisons using the Tukey test indicated that the mean for teachers with 2 years ($M = 17.0$, $SD = 1.41$), 3 years ($M = 12.41$, $SD = 2.48$), 4 years ($M = 12.05$, $SD = 2.66$), and 5 years or more ($M = 11.17$, $SD = 3.18$) of PBIS implementation was not significantly different among participants. Taken together, we can conclude that perceptions of PBIS related to student-teacher rapport differ significantly based on years of teaching experience.

Table 10
ANOVA: Years of PBIS implementation, student behavior, and rapport.

Student Behavior	*p* (2-tailed)	F	N	Mean	SD		Sum of Squares	df	Mean Square
Years as PBIS School									
2 years	n.s.	0.773	2	12.5	2.12	Between Groups	16.47	3	5.49
3 years			22	11	2.05				
4 years			42	10.71	2.24	Within Groups	1214.65	171	7.10
5+ years			109	10.38	2.91				
Total			175	10.56	2.65	Total	1231.12	174	

Student-teacher Rapport	*p* (2-tailed)	F	N	Mean	SD		Sum of Squares	df	Mean Square
Years as PBIS School									
2 years	0.011*	3.801	2	17	1.41	Between Groups	100.88	3	33.63
3 years			22	12.41	2.48				
4 years			42	12.05	2.66	Within Groups	1512.91	171	8.85
5+ years			109	11.17	3.18				
Total			175	11.61	3.05	Total	1613.79	174	

* $p<.05$

Hypothesis 11 and Findings: Perception of PBIS Implementation and Student Behavior

***H_{11}*:** There will be a significant difference in teacher perception of student behavior based on teacher perception of fidelity of PBIS implementation in teacher's school.

***F_{11}*:** There was a significant difference in teacher perception of student behavior based on teacher perception of fidelity of PBIS implementation in teacher's school.

Hypothesis 12 and Findings: Perception of PBIS Implementation and Student-teacher Rapport

***H_{12}*:** There will be a significant difference in teacher perception of student-teacher rapport based on fidelity of PBIS implementation in teacher's school.

***F_{12}*:** There was a significant difference in teacher perception of student-teacher rapport based on teacher perception of fidelity of PBIS implementation in teacher's school.

Correlation

Correlation analysis was used to analyze participants' responses regarding relationships between teacher perception of the fidelity of PBIS implementation and perception of PBIS impact on student behavior and student-teacher rapport.

Student behavior

Findings reflect that there is a moderate, positive relationship between perception of PBIS implementation and perception of PBIS impact on student behavior (r=.494), such that those who tend to perceive a higher level of fidelity in PBIS implementation indicate a perception that PBIS has a greater impact on student behavior. A scatterplot displaying the linear nature of this relationship can be found in Appendix C.

Student-teacher rapport

Findings reflect that there is a moderate, positive relationship between perception of PBIS implementation and perception of PBIS impact on student-teacher rapport (r=.535), such that those who tend to perceive a higher level of fidelity in PBIS implementation indicate a perception that PBIS has a greater impact on student-teacher rapport. A scatterplot displaying the linear nature of this relationship can be found in Appendix D.

Table 11
Correlation: PBIS implementation, student behavior, and rapport.

Variables	PBIS Implementation	Student Behavior	Student-teacher Rapport
PBIS Implementation	1		
Student Behavior	.494**	1	
Student-teacher Rapport	.535**	.761**	1

Note: **p<.001

PBIS implementation = Teacher Perception of PBIS Implementation (as measured by survey items #6-8)

Student behavior = Teacher Perception of student behavior (as measured by survey items #9-13)

Student-teacher rapport = Teacher Perception of student-teacher rapport (as measured by survey items #14-19)

Regression

Regression analysis was used to examine relationships between teacher perception of PBIS implementation and perception of PBIS impact on student behavior and student-teacher rapport, and to determine how much perception of PBIS implementation may account for variances in perception of PBIS impact on student behavior and student-teacher rapport.

Student behavior

Using a sample of 175 participants, the researcher found that perception of PBIS implementation is a significant predictor of perception of PBIS impact on student behavior (p=.001). The difference in perception of PBIS implementation accounts for 24% of the variance in perception of PBIS impact on student behavior. The difference in perception of PBIS implementation is associated with a .69 point increase in teacher perception of PBIS impact on student behavior.

Student-teacher rapport

Using a sample of 175 participants, the researcher found that perception of PBIS implementation is a significant predictor of perception of PBIS impact on student-teacher rapport (p=.001). The difference in perception of PBIS implementation accounts for almost 29% of the variance in perception of PBIS impact on student-teacher rapport. The difference in perception of PBIS implementation is associated with a .86 point increase in teacher perception of PBIS impact on student-teacher rapport.

When multiple regression was used to measure the relationship between teacher perception of PBIS impact on student behavior and both perception of PBIS implementation and perception of PBIS impact on student-teacher rapport, these two variables accounted for 58.5% of variance in perception of student behavior. Likewise, when perception of student behavior and PBIS implementation were measured in relationship to teacher perception of PBIS impact on student-teacher rapport, these two variables accounted for almost 61% of variance, as reflected in Table 12.

Table 12

Multiple Regression: PBIS implementation, student behavior, and rapport.

	Unstandardized Beta	Standardized Beta
Perception of Student Behavior		
Perception of Student-teacher rapport	0.608	0.696**
Perception of PBIS Implementation	0.171	0.121*
R	R^2	Adjusted R^2
0.768	0.59	0.585
Perception of Student-teacher rapport		
Perception of Student Behavior	0.752	0.657**
Perception of PBIS Implementation	0.339	.211**
R	R^2	Adjusted R^2
0.783	0.613	0.608

Note: * p=<.05, ** p=<.01

Hypothesis 13 and Findings: Perception of Student Behavior and Student-teacher Rapport

***H_{13}*:** There will be a significant correlation between teacher perception of student-teacher rapport and teacher perception of student behavior.

***F_{13}*:** There was a significant correlation between teacher perception of student-teacher rapport and teacher perception of student behavior.

After considering the relationship between these two dependent variables and the independent variables in this study, the researcher was interested in the relationship between the participants' responses related to the two dependent variables. While there is a large body of literature establishing the correlation between PBIS and reductions in office referral rates, as referred previously to in this study's literature review, there is an absence of research on the connection between teachers' perception of the role PBIS plays in changing student behavior,

and PBIS' effectiveness in impacting student-teacher rapport. It is in this absence of data that this hypothesis sheds light on the correlation between teachers' perception of PBIS impact on student behavior and its impact on student-teacher rapport.

Findings reflect that there is a strong, positive relationship between teacher perception of PBIS impact on student behavior and teacher perception of PBIS impact on student-teacher rapport (r=.761), such that those who tend to perceive PBIS as having a sizable impact on student behavior also hold a perception of PBIS having a greater impact on student-teacher rapport. These findings are portrayed in Table 13 below, and a corresponding scatterplot displaying the linear nature of this relationship can be found in Appendix E.

Table 13
Correlation: Teacher perception of PBIS impact on student behavior and rapport.

Variables	Student Behavior	Student-teacher Rapport
Student Behavior	1	
Student-teacher Rapport	.761*	1

Note: *p<.001

Student behavior = Teacher Perception of PBIS impact on student behavior (as measured by survey items #9-13)

Student-teacher rapport = Teacher Perception of PBIS impact on student-teacher rapport (as measured by survey items #14-19)

Additional Findings

The participants' responses from survey items provided several interesting points of data that fall outside the focus of Hypotheses 1-13, but were relevant to this study on connections between teacher perception of PBIS, student behavior, and student-teacher rapport. The first of these are trends related to the demographic variables measured in the following survey items:

1. Are you working in a Title I or non-Title I school?
2. I have been teaching for __ years.
3. Our school has been a PBIS school for __ years.

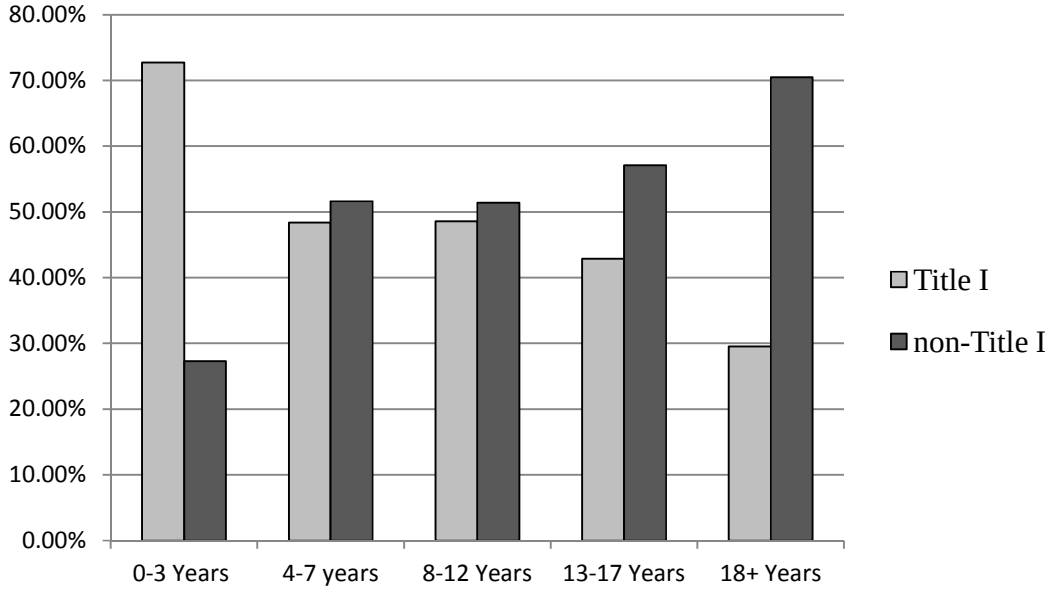
Participants' responses revealed interactions between these independent variables in the study sample.

Title I

The distinction of teachers working in Title I vs non-Title I schools was only found to be a significant variable in participants' responses to survey item #14 "I would characterize student-teacher relationships in our school as:" with responses ranging between very negative, negative, mixed, positive, and very positive (p=.015, r= -.184). This finding suggest that teachers in Title I schools have a significantly more positive view of student teacher relationships in their school.

Findings from participant responses regarding years of teaching experience and Title I job placement reflect that there is a weak but statistically significant, positive relationship between years of teaching experience and working in a Title I or non-Title I school (r=.215), such that those who tend to work in Title I schools in the participating district have significantly less experience in teaching. This relationship is best illustrated visually in Figure 1 below.

Figure 1
Years of teaching experience in Title I and non-Title I schools.



The second area of additional findings is data that showed significant connections on specific survey items, but because several survey items were grouped to measure a singular variable, these findings were not reflected in the study's primary findings. For instance, participant responses to specific survey items may have revealed significant variances or relationships, but when survey items #9-13 were combined to measure teacher perception of PBIS impact on student behavior and items #14-19 to measure teacher perception of PBIS impact on student-teacher rapport, the findings of specific survey items were not reflected in the study's overall findings.

Years of Teaching Experience

The years of experience a teacher has seem to play a substantial role in her/his perception of PBIS' impact on both student behavior and student-teacher rapport, but only in relation to specific survey items. In response to survey item #12 "*What impact has PBIS had on student behavior in your class?*", the findings indicated that years of teaching experience were positively

correlated with a more positive perception of PBIS impact on student behavior in her/his class (p=.032, r=.162). Concerning student-teacher rapport, years of teaching experience was found to be positively correlated with a more positive perception of PBIS impact on student-teacher rapport, as evidenced by data in survey items #16 – 19. While years of teaching experience was not found to be a significant variable with teacher perception of PBIS impact on student behavior, as measured by survey items #9-13, years of teaching experience did have a significant correlation with survey item #12. These findings are further described in Table 14. Even though experienced teachers may have had exposure and training in multiple approaches to managing student behavior, these findings reveal a trend of positive correlation showing that veteran teachers hold increasingly more positive perceptions of the role PBIS plays in enhancing student-teacher rapport.

Table 14
Correlation: Years of teaching experience and survey items.

	p	r
#12 What impact has PBIS had on student behavior in your class?	0.032	0.162
#16 PBIS has improved student-teacher relationships.	0.014	0.186
#17 With PBIS, students are more receptive to positive staff interaction.	0.021	0.174
#18 PBIS has made it easier to maintain positive relationships with students.	0.004	0.219
#19 PBIS has played the following role in our school with student-teacher relationships:	0.043	0.153

Years of PBIS Implementation

While the number of years a school has been implementing PBIS on a school-wide level does not indicate the quantity or quality of training they have had, or the level of collaboration

they have working together, it does reflect the exposure they've had to a PBIS approach and the time a school staff has had to reflect on their practice and effectiveness in this area. In the study's primary findings, years of PBIS implementation was not a significant variable in overall perception of PBIS impact on student behavior, but was significant in terms of overall perception of PBIS impact on student-teacher rapport. In the interest of taking a closer look at this relationship between years of PBIS implementation and participants' responses to specific survey items, Table 15 focuses on the survey items that yielded significant correlations with how many years a school has been implementing PBIS.

Table 15
Correlation: Years of PBIS implementation and specific survey items.

	p	r
#12 What impact has PBIS had on student behavior in your class?	0.001	-0.244
#16 PBIS has improved student-teacher relationships.	0.001	-0.244
#17 With PBIS, students are more receptive to positive staff interaction.	0.02	-0.175
#18 PBIS has made it easier to maintain positive relationships with students.	0.022	-0.173
#19 PBIS has played the following role in our school with student-teacher relationships:	0.007	-0.205

From the table above, we can see that years of PBIS implementation has a weak, negative correlation, but is statistically significant with teachers' perception of PBIS impact on student behavior in response to survey item #12, and student-teacher rapport in survey items #16-19. The findings from these specific survey items suggest that the longer a school implements PBIS, teachers' perceptions of PBIS impact particularly on student-teacher rapport become more negative. While it is important to note that participants' responses were positive overall regarding PBIS' impact on student behavior and student-teacher rapport, this trend of decreasing

positive perception as schools progress in years of PBIS implementation is not only worthy of notice, but it raises many questions as to why teachers more experienced in PBIS believe it has less impact on improving student-teacher rapport than teachers inexperienced with PBIS. While materials associated with the PBIS approach do not assert that it will directly improve student-teacher rapport, rather they focus on proactive ways to reduce problematic behaviors and promote desired behaviors (Sugai & Horner, 2002). This longstanding focus on behavior rather than relationships may be one of the factors in this study's participants perceptions related to student-teacher rapport, in that PBIS and its development and the central tenets were not communicated in relational terms. While most behavior is evaluated and measured in terms of its impact on human relationships, the behavioral focus of PBIS stems from the philosophical underpinnings of Applied Behavior Analysis, which in turn finds it origin in Behaviorism and theorists like B.F. Skinner (Sugai & Horner, 2002). This strain of psychological study is focused more on behavior modification and less on relational dynamics, and this focus on behavior modification may account for teachers' perceptions of rapport being less impacted by PBIS. These findings related to years of PBIS implementation and perception of PBIS impact on student-teacher rapport will be further discussed in chapter five.

Summary of Findings

The findings of this study were organized and reported according to the 13 hypotheses guiding the focus of this study. Findings were the result of examining connections between independent variables in this study and teacher perceptions of PBIS impact on student behavior, PBIS impact on student-teacher rapport, and lastly, possible relationships between teacher perception of student behavior and student-teacher rapport.

Insignificant Variables

Of the independent variables considered in this study, gender and current grade taught were found to be insignificant variables in all survey items measuring teachers' perceptions of PBIS impact on student behavior, PBIS impact on student-teacher rapport, and fidelity of PBIS implementation. In addition, the independent variables of Title I school placement and years of teaching experience were found to be insignificant when survey items (#9-13) were combined to measure perception of PBIS impact on student behavior and items (#14-19) were combined to measure perception of PBIS impact on student-teacher rapport. Lastly, the independent variable years of PBIS implementation was found to be insignificant in relation to perception of PBIS impact on student behavior. The variables of years of teaching experience, Title I school placement, and years of PBIS implementation were found to be significant related to participants' responses to specific survey items, and these areas of significance will be covered more in the summary of significant findings. Table 16 illustrates the study's findings in a basic format that further clarifies areas of significance and insignificance.

Table 16
Summary of findings: Variables and significance.

Independent Variables	**Student Behavior (Survey Items #9-13)	**Student-teacher rapport (Survey Items #14-19)	Specific Survey Items by number
Gender	n.s.	n.s.	n.s.
Current Grade Taught	n.s.	n.s.	n.s.
Title I	n.s.	n.s.	#14
Years Teaching	n.s.	n.s.	#12, 16, 17, 18, 19
Years of PBIS	n.s.	r = -.215*	#12, 16, 17, 18, 19
Perception of PBIS Implementation (Survey Items #6-8)	r = .494*	r = .535*	
**Student Behavior (Survey Items #9-13)	1	r = .761*	

Note: * p<=.01 ** Perception of PBIS impact on that area. Survey items #1 - 19 can be found in the PBIS-BRSS in Appendix B.

Significant variables

Within the study's primary findings, the variable that rose above all others as a significant correlate with teachers' perception of PBIS impact on student behavior and student-teacher rapport was their perception of PBIS implementation. This positive correlation suggests that teachers who believe that PBIS has been implemented in their school and classroom consistently and that their administrator actively supports PBIS are likely to hold a more positive view of PBIS impact on student behavior and student-teacher rapport. This connection between teachers' perceptions about PBIS warrants a closer examination of the substantial role that a PBIS implementation with fidelity has, not only on student behavior and school-wide collaboration, but on teachers' perceptions of the rapport they experience with their students.

Years of PBIS implementation, years of teaching experience, and Title I school placement were found to be significant variables, when analyzing their relationship with participants' responses to specific survey items. Interestingly, years of PBIS implementation and years of teaching experience were found to be significant with the identical survey items. In the area of perception of PBIS impact on student behavior, both these independent variables correlated significantly with survey item #12 "What impact has PBIS had on student behavior in your class?" These two variables increase in significance when considering their relationship with teacher perception of PBIS impact on student-teacher rapport, as the findings for survey items #16, 17, 18, and 19 show consistently significant correlations in this area of student-teacher rapport. Some important distinctions do exist between these variables of years of PBIS implementation and years of teaching experience. Most importantly, years of teaching experience has a positive correlation with survey items # 16-19, while years of PBIS has a consistently negative correlation with these same items. This suggests that more experienced teachers have an increasingly positive view of PBIS' impact on student-teacher rapport, while each year that a school implements PBIS may see declines in teachers' perceptions of PBIS impact on student-teacher rapport. Secondly, only years of PBIS implementation was found to significantly correlate with perception of PBIS impact on student-teacher rapport in this study's primary data analysis and findings, using survey items #14-19 to measure an overall perception of PBIS impact on student-teacher rapport.

Title I school placement was only found to be significant with one survey item (#14) in teacher perception of PBIS impact on student-teacher rapport. Participants' responses to, "What impact has PBIS had on student behavior in your school?", revealed Title I school placement as a significant variable, in that teachers working in Title I schools had a significantly more positive

view of PBIS' impact on student behavior in their school. While there may be other demographic or program-related factors associated with Title I schools that play a role in this more positive view, the fact that it is distinctly more positive is enough for us to acknowledge this difference.

Table 16 also shows the strong, positive correlation that teacher perception of PBIS impact on student behavior has with the same perception related to student-teacher rapport (r= .761). This strong correlation suggests that teachers' perception of one is closely related to their perception of the other. This is curious, as the same table shows the differences in significant findings that variables achieve with perception related to student behavior and perception related to student-behavior rapport. While further inquiry is outside the jurisdiction and scope of this initial study, these findings succeed in providing a starting place to accept the strong correlation between these two perceptions of teachers working in PBIS schools.

While gender, current grade taught, and Title I were largely found to be insignificant factors in teachers' perception of PBIS regarding student behavior and student-teacher rapport, Table 16 reflects a clear trend that the study's other independent variables held more significance with teachers' perception of the impact PBIS has on student-teacher rapport. This trend of significance will provide focus not only for discussion of the study's findings in chapter five, but it also may provide direction for future areas of inquiry related to PBIS and student-teacher rapport.

Chapter 5

Discussion and Conclusions

Discussion

Whereas chapter four described the findings of this study and outlined the data analysis that produced those findings, this final chapter begins with a discussion of those findings. The first research question for this study guides the initial stage of discussion of the study's findings, in order to provide the proper context for the outcomes of this study's inquiry. This research question was: "Are there any significant relationships between gender, grade level taught, years of experience teaching, placement in Title I or non-Title I schools, years PBIS has been implemented in participants' school, perception of implementation of PBIS, and teacher perception of changes in student behavior and student-teacher rapport?"

Discussion and interpretation of the findings summarize the most significant facets of this study's outcomes, along with areas of practical impact that these findings could have on both future research and practice related to PBIS and student-teacher rapport. The limitations and shortcomings of this research are also discussed, as well as recommendations for future study.

Interpreting the Results

Results related to Independent Variables

The first research question in this study, "Are there any significant relationships between gender, grade level taught, years of experience teaching, placement in Title I or non-Title I schools, years PBIS has been implemented in participants' school, perception of implementation of PBIS, and teacher perception of changes in student behavior and student-teacher rapport?" is largely answered in chapter 4, but more discussion is warranted in order to meaningfully interpret the findings.

Gender and Current Grade Taught

It is interesting that gender and current grade taught were consistently found to be insignificant factors in teacher perception of PBIS impact on student behavior and student-teacher rapport. This finding supported the researcher's hypotheses (#1-4), asserting that there will not be a significant difference in teacher perception of student behavior or student-teacher rapport based on gender or current grade taught. While there may be ways that male and female teachers approach their instruction, classroom management, and rapport with their students differently, this study finds that any such differences don't substantially affect teachers' perception of the impact PBIS has on their students' behavior, or the rapport they have with their students.

Likewise, the dynamics and issues that a first grade teacher deals with are very different than that of a sixth grade teacher. First grade teachers are focusing much of their attention to ensure that their students are mastering basic reading skills, getting along with others, and developing fine motor skills such as cutting with scissors and holding a pencil. Typically, teachers working with sixth grade students are still concerned with helping them learn to get along with each other (and deal with peer pressure), but are more focused on preparing them to demonstrate mastery in the core areas of math, reading, writing, and science as students transition to middle school courses. This difference in focus and experience did not account for any significant differences in teacher perception of the impact PBIS has on their first and sixth graders' behavior or the rapport they have with their students.

Title I and Years of PBIS Implementation

1. Besides participants' responses to survey item #14 ("I would characterize student-teacher relationships in our school as:"), teachers in Title I schools did not vary significantly from

non-Title I school teachers in their perceptions related to PBIS, student behavior, and student-teacher rapport. These findings failed to support the acceptance of the researcher's hypotheses (#5 &6), stating there would be a significant difference in teacher perception of student behavior and student-teacher rapport based on Title I school placement. This lack of variance might have been mitigated by the fact that Title I schools in the participating district tended to have more years of PBIS implementation than non-Title I schools, had these two independent variables been found to correlate significantly. This relationship between Title I school placement and years of PBIS implementation was found to be a negative association, in which non-Title I school teachers indicated less years of PBIS implementation. However, this negative association did not meet the criteria for significant correlation ($p = .163$, $r = -.106$) Years of PBIS implementation was found to account for a significant variance in teacher perception of PBIS impact on student-teacher rapport. Participants' responses to survey item #14 revealed that Title I teachers have a significantly more positive view than their non-Title I school coworkers regarding the impact PBIS has had on student behavior in their school, but teachers in schools with more years of PBIS implementation expressed a less positive view of the impact PBIS has on student-teacher rapport. This is the only area in the findings when teachers' perceptions of PBIS impact on student behavior and PBIS impact on student-teacher rapport follow opposite trend lines. This finding that teachers' perceptions of student-teacher rapport become increasingly negative with each year of PBIS invites more inquiry into the causes for these views, since these are the teachers with the most experience implementing PBIS. While PBIS is described as a school-wide approach to

student behavior, expectations, and school culture, most materials describing

Implications of this particular finding will be discussed more in chapter five.

Years of Teaching Experience

The researcher hypothesized (#7 & 8) that a teacher's level of experience would be a significant factor in teachers' perceptions of PBIS impact on both student behavior and student-teacher rapport. This study's primary analysis and findings failed to support acceptance of those hypotheses, as teaching experience was found to be an insignificant factor in teachers' views of how PBIS impacted both student behavior and student-teacher rapport. It is likely that veteran teachers would have increased experience with other approaches to behavior management prior to PBIS' development and introduction to schools. Despite this experience, additional findings from this study indicated that teachers' positive views of the impact PBIS has on student behavior (based on survey item #12) and student-teacher rapport (based on survey items #16-19) significantly increase as years of experience increase. This positive correlation may suggest that experienced teachers' deeper knowledge of behavior management and interpersonal skills align well with the major tenets of PBIS. It is likely that PBIS' proactive and positive approach to student behavior which emphasizes consistent consequences and clear communication of expectations shares strong common ground with other behavior management systems that have enjoyed success in schools before and during PBIS' development. These common areas of focus in effective school-based behavior management systems would be an interesting area for further research to examine alignment between popular behavior management programs including PBIS.

Years of PBIS Implementation

How long a school has been implementing PBIS proved to be an interesting variable, since this study found it to be an insignificant factor in teacher perception of PBIS impact on

student behavior but a significant factor in teacher perception of PBIS on student-teacher rapport. The researcher hypothesized (#9 & 10) that teachers with more experience implementing PBIS would indicate a more positive view of how PBIS impacts both student behavior and student-teacher rapport. Findings not only failed to support acceptance of these hypotheses by showing that years of implementation was not a significant factor related to student behavior, but, even more surprisingly, that teachers who had been implementing PBIS longer expressed more negative views of any impact PBIS has on student-teacher rapport.

One reason for this increasingly negative perception could be the emphasis of PBIS programming and language on behavior rather than relationships. Whether through providing rewards for desired behavior based on acknowledgment, prizes, or relational affirmation, this emphasis on rewarding good behavior and consequencing bad behavior within the PBIS model may have the unintended consequence of de-emphasizing the importance of relationships in schools. This negative trajectory in teachers' perceptions of the impact PBIS has on student-teacher rapport suggests that the positive and proactive approach PBIS takes to student behavior has not successfully crossed over to improving the relational dynamics between students and teachers. The current body of literature showing that improved student-teacher rapport correlates positively with students' academic and personal success provides a substantial footing from which to advocate for enhancing SW-PBIS programs with strategies that teachers can integrate into their instructional practices that will build positive rapport with their students (Bergeron, Chouinard, & Janosz, 2011; Catt et al., 2007; Faranda & Clarke, 2004). While materials associated with the PBIS approach use wording that lends itself to behavior modification, and in particular an Applied Behavior Analysis perspective, the school-wide focus of PBIS brings the relational dynamics between teachers and students into focus, since instruction and learning

occurs most often within relational contexts. This gap in addressing student-teacher rapport within a school-wide proactive approach to behavior and school culture can be bridged by identifying research-based practices that build rapport and promote school engagement among students. Effective strategies reflected in the literature to improve student-teacher rapport and students' behaviors that enhance their relationships with both peers and staff include cross-age mentoring, interest-based learning, as well as training for teachers on rapport-building strategies that can complement quality instructional practices (Bussert-Webb, 2000; Karcher, 2008). This finding should be interpreted as a limitation of PBIS rather than a weakness, and an opportunity to integrate effective interventions and strategies to improve student-teacher rapport with SW-PBIS in order to address both behavior and relationships for the sake of both students and staff.

Teacher Perception of PBIS Implementation

The researcher hypothesized (#11 & 12) that how teachers view PBIS in their building in terms of fidelity of school-wide implementation would be a significant factor in their perception of the impact PBIS would have on student behavior and student-teacher rapport. These hypotheses (#11 & 12) were supported by the study's findings, reflecting that perception of PBIS implementation is a significant variable in how teachers view the ability of PBIS to impact student behavior and student-teacher rapport. Most importantly, teachers' perceptions as to whether PBIS was implemented with fidelity or not were measured by the following questions:

- Our school administration actively supports PBIS.
- Our school has implemented PBIS consistently.
- I have implemented PBIS consistently in my classroom.

Of these three survey items, teachers' view of their school administration's support is the strongest, positive correlating factor ($p <= .001$, $r = .694$) with their view of PBIS being

implemented consistently in the school. These findings reflect the central role in PBIS implementation that principals have as staff look to them to ensure consistency across staff. The strength of this correlation also suggests that ongoing district support and training for PBIS is a critical resource so that principals are prepared and equipped to provide the leadership needed in their buildings.

Findings between Dependent Variables

The second research question guiding this study's focus was: "Is there a relationship between teachers' perceptions of PBIS effect on student behavior and student-teacher rapport?" Besides the possible variance based on Title I and years of PBIS implementation noted above, teacher perception of PBIS impact on student behavior and PBIS impact on student—teacher rapport was consistently aligned in the findings. With a strong, positive correlation ($r = .761$), these two aspects of teacher perception are closely dependent on each other. It is important to note that the next most significant variable in teacher perception of PBIS impact on student behavior and student-teacher rapport was found to be teacher perception of PBIS implementation. This is especially significant when we consider that current research has shown that one of the core elements of implementing PBIS with fidelity is consistency and collaboration among staff (Upreti, 2009; Netzel & Eber, 2003). Taken together, these findings regarding PBIS implementation suggest that the quality of relationships between school staff has a substantial influence on teachers' perception of the rapport they do or do not have with their students.

Shortcomings of the Research

This study used an original survey instrument to measure teacher demographics and perceptions related to PBIS, student behavior, and student-teacher rapport. Due to the researcher's desire to make the survey as concise as possible and gather as many completed

surveys as possible, the scope of the PBIS-BRSS was quite limited with only 19 items. Within these items, items #1-8 were used to measure demographic and perceptual data as independent variables, while items #9-13 (perception of PBIS impact on student behavior) and items #14-19 (perception of PBIS impact on student-teacher rapport) were used to measure dependent variables. Even with just 19 survey items, the researcher needed to limit the number variables for analysis, so survey items were combined as such to provide clarity in the primary findings:

- Items #6-8: Teacher perception of PBIS implementation
- Items #9-13: Teacher perception of PBIS impact on student behavior
- Items #14-19: Teacher perception of PBIS impact on student-teacher rapport

Combining these survey items to create only two dependent variables allowed the researcher to limit analyses to that which directly relates to the 13 hypotheses in the study. Adversely, it also excluded some significant findings found in additional analysis. While this is merely a limitation of focus for this study, it does point to the opportunity for further research to focus more deeply on these independent variables of years of PBIS implementation and years of teaching experience in regards to teacher perception related to PBIS.

When examining data that deals with participants' perception, further research that aims to go deeper may benefit from a qualitative approach, so that more multi-faceted data can be used to examine participants' perceptions. For the purposes of conciseness and clarity, the researcher chose to conduct this study using a quantitative approach with an intentionally limited number of variables, with the hope that this study's findings would provide interesting directions for further inquiry. This study's findings succeed in not only providing direction for future research, but also in shedding light on aspects of PBIS that could be strengthened with cross-

disciplinary practices, particularly in the area of rapport-building strategies that would be complementary with quality instruction when integrated effectively.

Implications for Educators

As educational research continues to reflect the successful experiences that schools have when implementing PBIS with fidelity, it is likely that PBIS will continue as a widespread approach to managing behavior in schools (Beets, 2007; Bradshaw et al., 2008; Sugai & Horner, 2002). As schools and districts continue to support teachers in promoting desired student behavior and managing problematic behavior, PBIS' effectiveness in improving student behavior and student-teacher rapport can be substantially enhanced by introducing a few key rapport-building strategies that teachers can integrate into their approach to instruction. Considering the significant correlations that the current body of research has found between positive student-teacher rapport and increased academic engagement and success for students, integrating evidence-based strategies to build and maintain rapport into teachers' approaches to instruction is likely to improve learning outcomes (bhatti & Qazi, 2011; Roorda et al., 2011).

Factors Within Teachers' Reach

Teachers face increasing pressure to improve student learning outcomes as reflected in students' standardized test scores, yet there are many factors that are outside educators' control. Teachers cannot secure stable housing for their students to live in, or afford to cover their students' grocery and electricity bills. Schools can't turn around the economy, change today's poverty levels, or put students to bed at a suitable time each night. The values and beliefs of each family and community are not subject to teachers' opinions of how students should act, or why students should be at school each day and come motivated to complete their work. For each hour of contact time and instruction that educators have with their students, there are many more

hours that fall outside the reach of school. While excellent and passionate teachers may be able to teach a love for learning, a firmer grasp of math concepts, and better fluency rates, no amount of instruction can change a student's cognitive level of functioning, end domestic violence, or treat clinical mental illness. In the face of these factors outside teachers' control, PBIS provides a common place to start as schools work to communicate clear and consistent behavioral expectations and consequences for students (Cohen, 2006).

Educators know it makes sense to address the factors they can influence and change, as they look for margins where they can improve their students' learning. Teachers continually reflect on their own practice and review their students' formative assessments, while administrators look at ways they can improve building systems and promote teaching practices that will support teachers' effectiveness. As countless hours and resources are rightly dedicated to improving instruction, school efficiency, and student support services, the findings of this study and the current body of literature suggest that school resources devoted to improving student-teacher rapport would be an investment with substantial returns. While this study's findings also suggest that teachers view PBIS as a positive influence on student-teacher rapport, findings related to years of PBIS implementation and rapport reveal opportunities for the effectiveness of PBIS to be improved by providing additional interpersonal training and strategies for teachers. Finding ways to help teachers consistently offer psychological availability, promote trust, and communicate a personal level of investment in students' success may provide measurable gains, both in students' academic performance as well as in the supportive components and relational fabric within the culture of schools and classrooms (Catt, Miller, & Schallenkamp 2007; Faranda & Clarke, 2004; Gremler & Gwinner, 2000; Mehrabian, 1969).

Implications for future study

The findings of this study have established statistically significant relationships between teachers' years of experience, years implementing PBIS, perception of PBIS implementation, and their perception of the impact PBIS has on student behavior and student-teacher rapport. A strong, positive correlation was also found between teachers' perceptions of the impact PBIS has on student behavior and the impact PBIS has on student-teacher rapport. These findings carry substantial implications for further research in the following areas:

- Further study of student perception of PBIS impact on their own behavior and on the rapport they experience with their teachers would allow a comparison of student and teacher perceptions. Adapting the PBIS-BRSS survey to gather student responses related to demographics and perceptual data would be an effective way of comparing student and teacher responses regarding to the relationship between PBIS and student behavior and student-teacher rapport. This area of research could also focus on examining student perceptions and teacher perceptions in terms of other factors that influence student behavior and student-teacher rapport.
- Related to this line of inquiry, a closer examination of actual behavior referral rates, teacher perception, and student perception of changes in student behavior in PBIS schools may offer new insights. Examination of possible associations between what is actually documented in classrooms and school offices related to student behavior issues and what students and teachers perceive regarding behavior trends in PBIS schools may be an exciting direction for researchers to pursue. This overall direction of research related to PBIS and its effectiveness to positively impact student behavior and the relationships between students and school staff could have widespread implications for

how schools operate and how they develop their instructional practices and discipline policies.

- The findings from this study that suggest teachers' positive views of the impact PBIS has on student-teacher rapport actually decline with each year of PBIS implementation could benefit from further research examining factors in these changing teacher perceptions. Since PBIS is such a comprehensive and school-wide approach, the number of factors that may affect teachers' perceptions of student-teacher rapport are likely multifaceted and based on several factors. Identifying what factors are most significant for teachers' changing views of student-teacher rapport in PBIS schools could lead to improvements in how PBIS is implemented in the future.

Conclusions

This study has been the end of one journey and the beginning of another. The researcher is interested in finding ways to help systems serve people better, believing that all people are best served when their needs and strengths are acknowledged, when opportunities for growth can be accessed equitably, and when that growth occurs in the context of safe and supportive relationships. While the data collection and analysis for this study were completed between December 2012 and January 2013, the process of surveying and understanding the current body of literature related to PBIS and student-teacher rapport has taken place over these last few years.

Teachers have done great work using what they know (instruction and assessment) to accomplish impressive results in many aspects of student learning. While effective instruction is able to reach across multiple disciplines, from science, math, social skills, speech, technology, and even in serving students with some learning disabilities, there are areas of student development and learning not served well by traditional instruction. Meanwhile, the helping

professions, particularly in social work and developmental psychology, have developed effective ways of helping people develop emotional regulation and relational skills (Benson, Cohen, & Buskist, 2005; Benson & Scales, 2009; Bergin, 2009). Finding ways to blend instructional and therapeutic approaches in education provides opportunities for innovative interdisciplinary approaches that could bridge this gap between the academic, social, and emotional realms of student learning and development. A complementary approach that is mindful of social and emotional strengths and experiences can not only strengthen students' development of important skills and knowledge, but could also enhance the relational interactions in classrooms and student-teacher rapport (Scales, Benson, Roehlkepartain, Sesma, & van Dulman, 2006). Schools could become more effective in the way they serve students while also improving teachers' job satisfaction through acknowledging the critical role that student-teacher rapport plays in students' academic engagement and achievement.

On a primary level, this study tested the correlation between student behavior and student-teacher rapport, and found that teachers' perceptions of them were significantly correlated. In moving beyond a behaviorist view of human behavior, educators know that factors such as emotional safety, relational support, and meaningful work and play create the context for students' behavior. Allowing teachers to integrate rapport-building skills and therapeutic skills into their approach to instruction will address many obstacles to students' learning on a preventive level. Schools have succeeded in finding ways to support students' learning with academic instruction, but have also struggled to sustainably address behavioral disabilities and/or issues blocking many students' access to education using only a behaviorist approach to behavior. Just as plants grow best when the gardener is mindful of the soil they are planted in, we need to turn our attention to developing schools, classrooms, and hallways with relationships

between students and teachers that can create the type of nurturing environment that students can realize their potential in.

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Appendices

Appendix A

Participant Consent Form

November 2012

Dear Colleague,

As an elementary teacher in Hillsboro Schools, your perspective on PBIS is of interest to me in my study of factors related to student-teacher rapport. I'm asking for your participation in this educational research project. This survey should only take a few minutes of your time.

The study deals with elementary teachers' perceptions of student-teacher rapport, student behavior, and PBIS implementation in your school. As a participant, you have the opportunity to complete a short survey regarding your perspectives, which may be of help to educators and their students in the future. I'm asking you to complete a short survey with 19 questions, delivered online via Survey Monkey. All identifying information will be kept confidential, and only reported in aggregate form.

Consent

By participating in the aforementioned research project, you give your consent according to the terms and conditions outlined above. I understand that this study will be conducted by Chris Cochran in fulfillment of the requirements for his doctoral dissertation at George Fox University under the supervision of Dr. Sue Harrison.

Appendix B

PBIS Behavior and Rapport Staff Survey

Please circle the option that is most true of you.

1. What is your gender?

(female, male)

2. What grade do you currently teach? (if you teach a split, indicate the highest grade)

(K, 1, 2, 3, 4, 5, 6)

3. Our school has been a PBIS school for __ years.

(1, 2, 3, 4, 5 or more)

4. Are you working in a Title I or non-Title I school?

(Title I, Non-Title I)

5. I have been teaching for __ years.

(0-3 years, 4-7 years, 8-12 years, 13-17 years, 18+ years)

6. Our school administration actively supports PBIS.

(strongly disagree, disagree, neutral, agree, strongly agree)

7. Our school has implemented PBIS consistently.

(strongly disagree, disagree, neutral, agree, strongly agree)

8. I have implemented PBIS consistently in my classroom.

(strongly disagree, disagree, neutral, agree, strongly agree)

9. Since implementing PBIS, our students are more respectful.

(strongly disagree, disagree, neutral, agree, strongly agree)

10. Since implementing PBIS, our students are less disruptive.

(strongly disagree, disagree, neutral, agree, strongly agree)

11. What impact has PBIS had on student behavior in your school? (11&12 needed?)

(very negative, negative, no impact, positive, very positive)

12. What impact has PBIS had on student behavior in your class?

(very negative, negative, no impact, positive, very positive)

13. My students respond positively to directions.

(rarely, sometimes, usually, very often)

14. I would characterize student-teacher relationships in our school as:

(very negative, negative, mixed, positive, very positive)

15. I would characterize student-teacher relationships in my classroom as:

(very negative, negative, mixed, positive, very positive)

16. PBIS has improved student-teacher relationships.

(strongly disagree, disagree, neutral, agree, strongly agree)

17. With PBIS, students are more receptive to positive staff interaction.

(strongly disagree, disagree, neutral, agree, strongly agree)

18. PBIS has made it easier to maintain positive relationships with students.

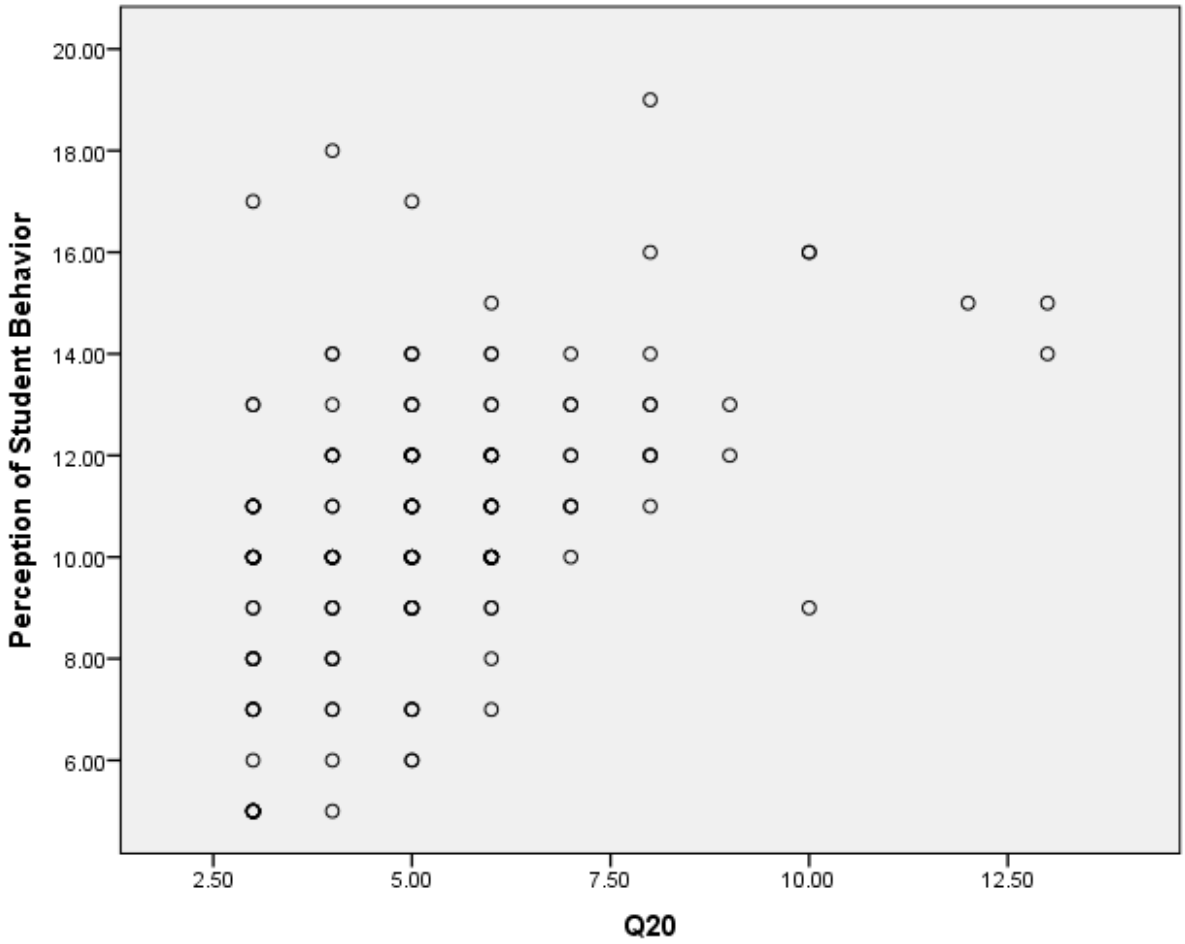
(strongly disagree, disagree, neutral, agree, strongly agree)

19. PBIS has played the following role in our school with student-teacher relationships:

(very negative, negative, no role, positive, very positive)

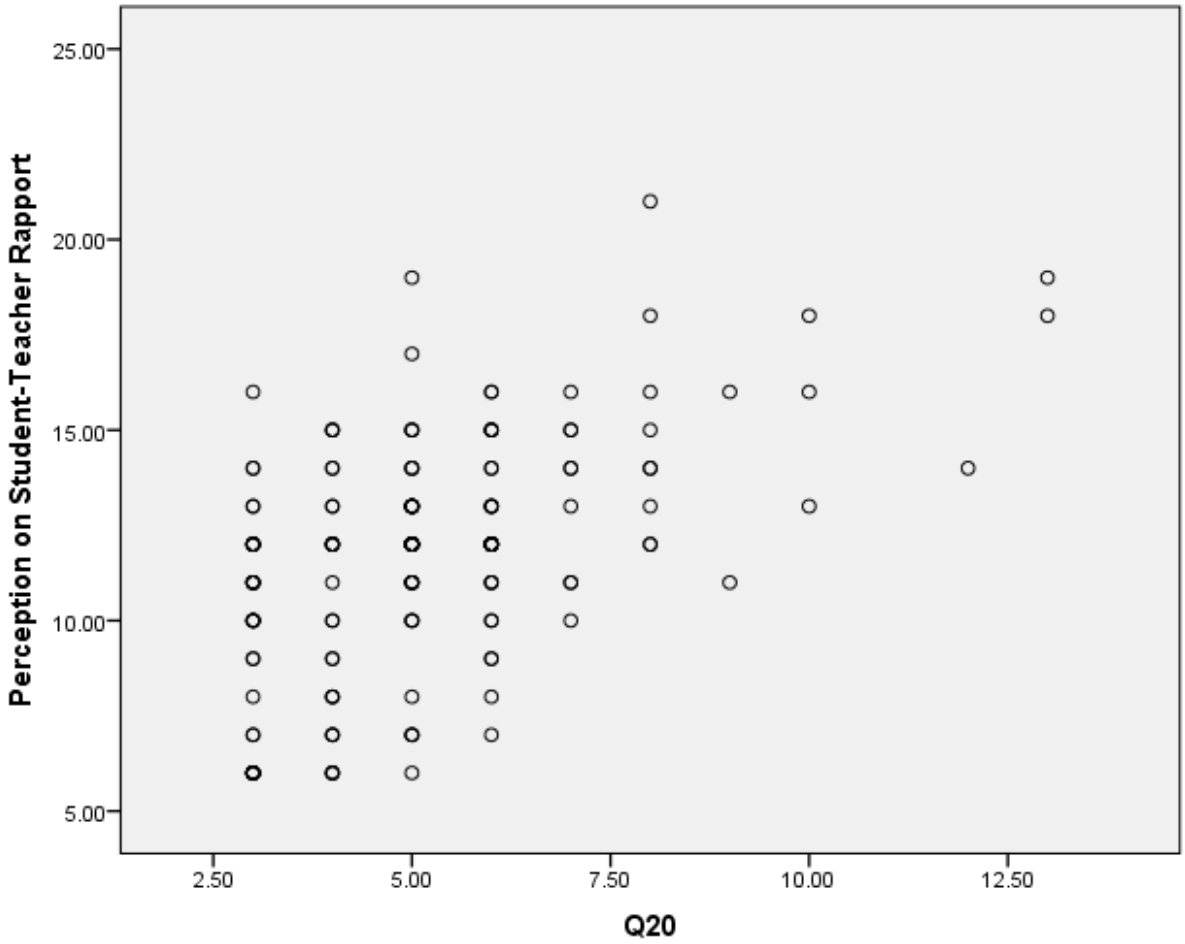
Appendix C

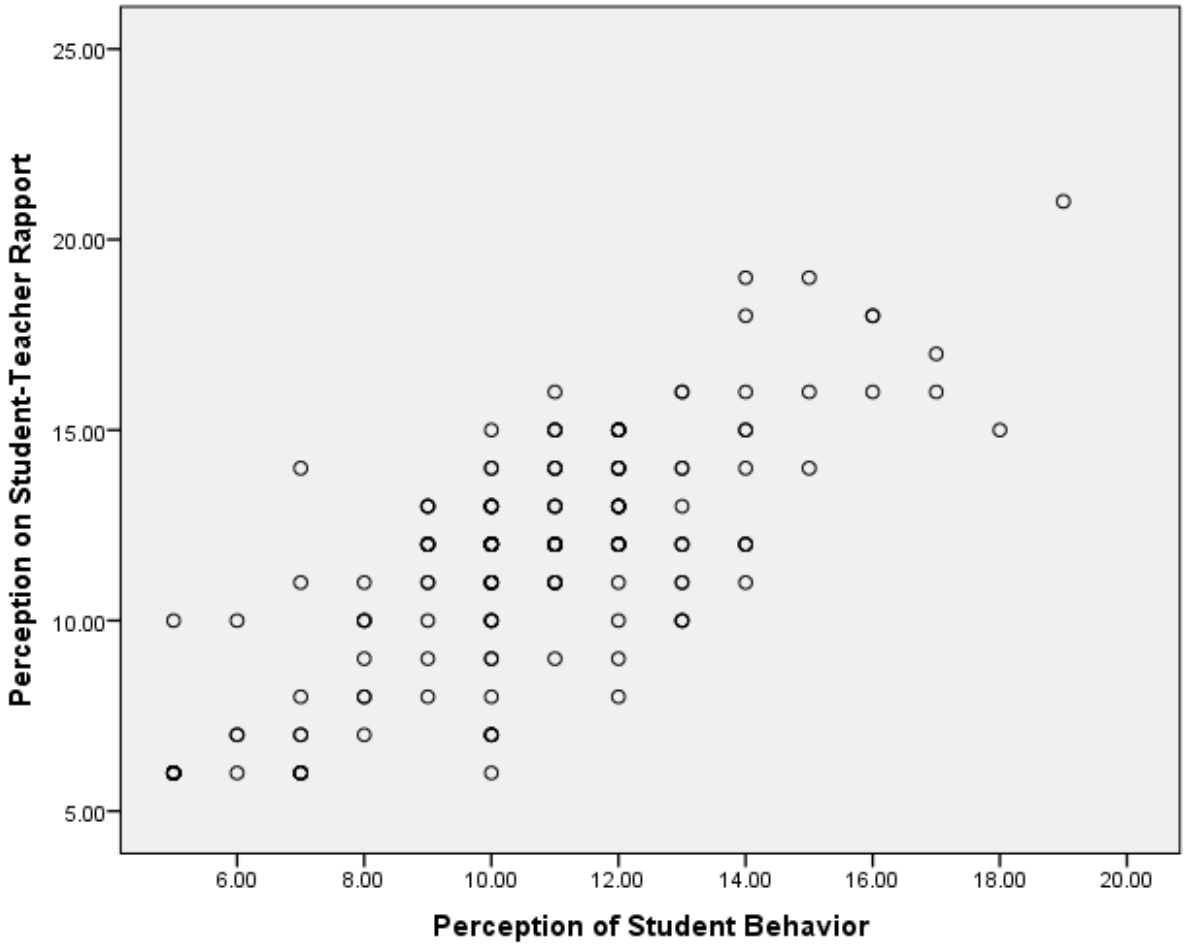
Scatterplot: Correlation between teacher perception of PBIS implementation (Q20) and perception of PBIS impact on student behavior.



Appendix D

Scatterplot: Correlation between teacher perception of PBIS implementation (Q20) and perception of PBIS impact on student-teacher rapport.



Appendix E

Scatterplot: Correlation between teacher perception of PBIS impact on student behavior and perception of PBIS impact on student-teacher rapport.