THE RELATIONSHIP BETWEEN PRINCIPAL LEADERSHIP SKILLS AND SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT: AN EXPLORATORY STUDY

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The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled:

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

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DEDICATION

This study is dedicated to my family –

To my parents, John and Marjorie Miller, who always put others first, believed in and demonstrated the responsibility we all have to improve our world, and who have supported me throughout my life in whatever I have striven to do.

To my sister Ann and brother-in-law Bill, for their unyielding faith in me and sincere interest in learning about my work.

To my husband, Roy, for many sacrifices large and small that helped me accomplish this goal, for his continued support, and for his pride in my accomplishments.

And to my daughters, Amanda and Laura, who bring joy and meaning to my life every day and give me purpose in all that I do.

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ABSTRACT

The purposes of this study were to (1) identify key principal leadership skills associated with socially proactive school environments, (2) examine the relationship between SW-PBS implementation and increased evidence of those skills, (3) examine the relationship between evidence of those skills and improved certified staff job satisfaction, and (4) examine the leadership variables associated with SW-PBS and recommendations from the field. Additionally, this study sought to initiate a line of research associated with principal leadership and SW-PBS. In Phase I, descriptive analysis of the literature related to principal leadership, special education, and SW-PBS resulted in the identification of 31 key principal leadership skills In Phase II, a questionnaire developed for the study was administered to 725 respondents (431 from schools implementing SW-PBS and 294 from schools that were not implementing SW-PBS) within the state of Missouri. Findings from this phase indicated: (1) certified staff and principals rated the importance of each of the 31 skills highly, (2) principals in SW-PBS schools received significantly higher ratings associated with behavior management effectiveness and (3) principals from SW-PBS and non-PBS schools received relatively equivalent ratings in regard to transformational and managerial skills. In Phase III, SW-PBS certified staff respondents indicated statistically significant greater rates of job satisfaction than did those in non-

PBS schools. In Phase IV, the predictive ability for job satisfaction in relation to principal behavior management skills and SW-PBS status were simultaneously examined. Principal behavior management skills were found to be the most statistically significant indicator of certified staff job satisfaction.

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Challenges Facing Schools

General education and special education are becoming increasingly aligned through federal legislation, particularly the No Child Left Behind Act of 2001 (NCLB), the Individuals with Disabilities Education Improvement Act (IDEA) of 2004, and Section 504 of the Rehabilitation Act of 1973. Additionally, more students with disabilities are being educated in general education classrooms for larger portions of the school day, and standardized assessments of schools' progress toward meeting adequate yearly progress (AYP) goals must include their results (Ysseldke et al. 2004). As such it is prudent for general and special education researchers and practitioners to develop, examine, and implement programs that are effective and efficient for all students (Young, Petersen, & Short, 2002).

A consistent theme throughout federal education legislation is the accountability of public schools for the educational progress of all students (Council for Exceptional Children, 2002; Yell, 2006). School personnel are to meet requirements to demonstrate their status as "highly qualified" and accountability for academic progress of all students is to be measured by standardized assessment instruments (Council for Exceptional Children, 2004). Additionally, school personnel are charged with maintaining safe and orderly school environments (U.S. Department of Education, 2001; Walker & Horner, 1996). Demands for safer schools have intensified as public awareness and concerns

about issues related to discipline, drug use, and violence have increased (Rose & Gallup, 2006; Sugai & Horner, 2002).

Public school principals are on the front lines of those being held accountable for the educational progress of all students and for maintaining safe school environments (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005; Lucas & Valentine, 2002). Fortunately, there is a growing consensus in the field of education that there are identifiable competencies of effective school principals that increase the likelihood of overall school success (Day, 2000; DiPaola & Walther-Thomas, 2003; Learning First Alliance, 2005). These competencies support increased achievement for all students, including those identified with disabilities, and enhanced job satisfaction among staff members. Additionally, there is agreement among researchers and policymakers regarding which competencies should be objectively assessed as demonstrable skills (Hale & Moorman, 2003; Waters, Marzano, & McNulty, 2003). "Competencies" generally refer to broad categories of demonstrable ability whereas "skills" implies specific abilities that are more amenable to being operationalized and measured. Formal assessment of competencies and skills are employed by over 40 states as one facet of administrator licensure (Davis, et al. 2005).

As the assessment of administrator competencies and skills are becoming more commonplace, the expectations and challenges faced by principals are increasing. Teacher satisfaction with their principals related to accessibility, support in matters of student discipline, and guidance related to curriculum implementation have been identified as a critical factor in retaining highly qualified general and special education

teachers (Embich, 2001; Johnson & Birkeland, 2003; Minarik, Thornton, & Perreault, 2003; Richards, 2003). The student population is changing demographically, educationally, and behaviorally (Epstein, et al. 2005; Lewis & Sugai, 1999b; Lucas & Valentine, 2002; Salisbury & McGregor, 2002). Therefore, strategies that can better support principals to meet these expectations and challenges are needed.

Federal and state laws require principals to be more knowledgeable about providing a variety of student academic and behavioral supports, and more skillful at making best use of the available resources to do so (Patterson & Protheroe, 2000). However, individual state licensure requirements for principals as a whole are not consistent, and many do not require demonstration of competencies associated with behavior management or knowledge of characteristics associated with students with diverse learning needs (Hale & Moorman, 2003; Praisner, 2003; Sirotnik & Kimball, 1994). In addition, there is a shrinking pool of experienced principals and they are quickly aging out of the profession (Davis et al. 2005; Shen, Cooley, & Wegenke, 2004).

Courses of study through universities and colleges in preparing principals are also diverse, utilizing varying degrees of implementation and instruction in the generally agreed upon competencies and skills (Hale & Moorman, 2003; Young, et al. 2002). If principals are to be successful in meeting the challenges associated with providing effective leadership and support to school personnel so that proactive and research-based practices will be utilized to promote success for all students, they must be provided with the requisite skills (Crockett, 2002). Thus, although principals are charged with ensuring

academic and behavioral success for all students, they may not have adequate knowledge and expertise to do so.

Federal special education laws have been in place since 1975, but many school administrators have limited knowledge about them (Crockett, 2002; Yell, Katsiyannis, & Bradley, 2003). Many principals have limited experience or coursework directly related to students with disabilities. The concepts of least restrictive environment and inclusion have varying meanings for different principals, (Powell & Hyle, 1997) yet it is frequently their responsibility as the local education agency (LEA) representative to ensure that an appropriate education is developed for students with disabilities (Salisbury & McGregor, 2002; Yell, et al.). "In providing leadership for the special education program in their schools, principals must blend knowledge of effective educational practice with knowledge of the law in order to develop and maintain the best program for all students." (Patterson & Protheroe, 2000, p.1).

Additionally, administration preparation programs often do not include any significant coursework or training associated with proactive behavioral intervention and/or management (DiPaola & Walther-Thomas, 2003). These are critical skills for principals to possess given the behavioral and academic challenges students are bringing to schools and the evidence of teacher frustration and need for guidance related to these issues (Minarik, et al., 2003). Students who do not qualify for services through special education but who continue to display significant difficulties in meeting accepted academic and behavioral standards provide an additional ongoing challenge to schools and their administrators (Newcomer, Lewis, & Powers, 2002). Teachers cite lack of

administrative support in matters related to student discipline as a contributing factor to job dissatisfaction, burnout, and deciding to leave teaching positions (Embich, 2001; Johnson & Birkeland, 2003; Richards, 2003). Developing safe and supportive school communities is recognized as a critical factor in establishing environments where student achievement increases and staff members choose to work (Learning First Alliance, 2001; Rubin, 2004). "To more fully respond to the issue of creating improved school environments ...informed policy and interventions are urgently needed." (Lewis, Newcomer, Trussell, & Richter, 2006, p. 834).

In summary, administrator preparation appears to be lacking with respect to creating proactive school environments that can efficiently and effectively manage, improve, and provide instruction in academics and appropriate behavior for all students while supporting school staff members. Given the challenges associated with retaining quality general and special education teachers, the growing number of students with diverse needs, and the shrinking pool of qualified administrators, it is imperative that principals are given training in effective leadership skills associated with establishing and maintaining proactive school environments that can potentially meet their needs as well as the staff and students they serve.

An Emerging Research Base to Assist in Meeting the Challenges

Positive Behavioral Supports (PBS) are identified in the 2004 reauthorization of IDEA as a means to address the behavioral needs of children prior to placing them in special education, as well as after they are identified (IDEA, 2004). School-wide PBS provides a framework for implementing and sustaining effective, research-based practices

in a systematic, data-based manner to improve student outcomes through a balanced integration of four elements (Sugai, Hagan-Burke, & Lewis-Palmer, 2004). First, schools select clear and measurable outcomes they value for improving their school-wide discipline systems. These outcomes are then expressed as expectations which are taught to all students, staff and parents. For example, a common set of expectations selected by schools is "I am safe, I am respectful, and I am a learner."

Second, evidence-based practices to teach and reinforce appropriate behaviors framed within the expectations are identified and agreed upon by building staff. Third, systems within the school are implemented and refined as needed to assure staff members are supported in their efforts to teach and reinforce the expectations with fidelity (Lewis & Sugai, 1999a, Taylor-Greene, et al., 1997). Because the expectations are to be taught, reinforced and monitored across all school settings, school staff members identify how to teach and model them to fit those settings. For instance, "be safe" would imply one set of actions and routines in the cafeteria and a potentially different set in the classroom or on the playground (Lewis, Powers, Kelk, & Newcomer, 2002). Finally, accurate and objective data must be collected, analyzed, and disseminated to all stakeholders so that ongoing assessment of the systems and practices can be accomplished (Lewis-Palmer, 1999; National Technical Assistance Center on PBIS, 2004; Sugai, Hagan-Burke, & Lewis-Palmer, 2004).

The three-tiered School-wide PBS (SW-PBS) framework provides administrators and staff with a working model on how to build within-school capacity and competence to (a) incorporate proactive strategies, (b) teach appropriate behaviors to all students, and

(c) match behavioral interventions to students' needs (Colvin, et al. 1996; Colvin & Sprick, 1999; Nelson, 2000, National Technical Assistance Center on PBIS, 2004). The three tiers, primary (universal), secondary (small group), and tertiary (individual), comprise a continuum of systems of support that make best use of a school's resources. Primary efforts are implemented school-wide, across all settings, for all students, and are implemented by all staff. They form the basis of the school discipline system and have been demonstrated to be effective with approximately 80% of the student population (Sugai, et al. 2004; Sugai & Lewis, 2004).

Secondary efforts are implemented to support students at-risk for more serious problem behavior (National Technical Assistance Center on PBIS, 2004) and may include small groups designed to re-teach the school-wide expectations in specific settings and/or simple individualized strategies and behavior intervention plans (BIPs) (Lewis & Garrison-Harrell, 1999). These efforts may be led by a variety of school staff members including counselors, administrators, social workers, teachers, and auxiliary staff members. Approximately 15% of a student population will fall within this category and will respond to the interventions.

Tertiary supports are necessary for students who engage in on-going, chronic displays of inappropriate behaviors and who usually have a history of behavioral difficulties (National Technical Assistance Center on PBIS, 2004; Sugai, et al. 1999; Turnbull, et al. 2002). The focus of these supports is to reduce the complications, overall intensity, and potential severity of the behaviors. Students with these behavioral patterns comprise approximately 5% of a school population, are likely to have already been

identified for special education services, and will usually require on-going supports throughout their school careers (Walker, Colvin, & Ramsey, 1995). By more appropriately implementing efforts across a three-tiered system, schools make more efficient and effective use of the personnel, time and resources available (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Lewis & Sugai, 1999a).

Training in SW-PBS methods has traditionally been presented through professional development activities but a growing number of colleges and universities are offering coursework in its principles and practices (R. Freeman [personal communication], January 31, 2005). The emphases in training of establishing a clear mission, clearly defining behavioral expectations, developing a working action plan to implement and teach the expectations and to assess progress through data-based decision making can assist administrators and staff to collaborate in building a proactive school environment through school-wide PBS.

Statement of the Problem

School-wide Positive Behavior Support has been identified as an effective framework to provide principals with a process to adequately identify, implement, and assess appropriate behavioral supports and systems for staff and students (Horner, R., Sugai, & Horner, H., 2000; Taylor-Greene & Kartub, 2000). While there have been studies associated with the effectiveness of SW-PBS in improving outcomes for students (Lewis, Sugai, & Colvin, 1998; Lewis-Palmer, Flannery, Sugai, & Eber, 2002; Newcomer & Lewis, 2004; Newcomer & Powers, 2002), there have been few publications specifically describing factors associated with effective leadership by

principals in schools employing SW-PBS (Colvin & Sprick, 1999; Taylor-Greene & Kartub, 2000), and no research-based studies investigating leadership skills in relation to SW-PBS.

The credibility of any aspect of a school's environment, whether formal or informal, ultimately rests with the administrator in charge. The principal is the chief learning officer, charged with leading the school and its community members forward to meet the challenges of preparing all students to be academically and behaviorally successful (National Association of Elementary School Principals Collaborative Communications Group, 2002).

Principals who are more knowledgeable about special education, diverse learning needs, and behavior management are more likely to view inclusionary practices as appropriate (Praisner, 2003), and to provide the necessary supports for successful collaboration of general education and special education teachers (Brotherson, Sheriff, Milburn, & Schertz, 2001; Patterson, Marshall, & Bowling, 2000; Salisbury & McGregor, 2002). Those who have been adequately trained in principles of behavior, functional assessments, proactive strategies, and developing consistent and cohesive discipline systems are more likely to be successful in leading teachers and other stakeholders to develop appropriate IEP's for students who display ongoing inappropriate behaviors and/or the lack of appropriate social skills (Bays, 2004; Nersesian, Todd, Lehmann, & Watson, 2000; Smith & Katsiyannis, 2004; Yell, et al. 2003).

SW-PBS has been recognized as a viable tool in developing appropriate social and behavioral skills for all children (U.S. Office of Special Education and Rehabilitative

Services, 2003), and has been demonstrated to provide school personnel with a continuum of skills, practices, and systems in behavioral instruction and management which can potentially support them in making better informed and more appropriate educational decisions for students at-risk for or identified with E/BD (Colvin & Sprick, 1999; Horner, et al. 2005; Sugai et al., 1999). Administrative leadership has been identified as a critical component of establishing and maintaining SW-PBS (Horner & Sugai, 2000; Lewis & Sugai, 1999a; O'Rourke, et al. 2000; Sugai, et al. 1999). Training in SW-PBS can theoretically provide administrators with direction and enhance skills associated with establishing and maintaining proactive school environments where evidence of appropriate student behavior is increased. Identifying how SW-PBS can guide principals to utilize skills in establishing school environments where all teachers and students are more likely to be successful is imperative.

To date, no research-based studies have been conducted to assess the effectiveness of SW-PBS in improving key principal leadership skills associated with proactive school management of behavioral systems and supports. Safran and Oswald (2003) noted, "In researchers' zest to evaluate intervention effectiveness, they (PBS) have yet to examine process and leadership factors, including team decision-making practices, how staff consensus for intervention priorities are developed, and the role of school leadership (p. 370)." This is a significant gap in the knowledge-base regarding SW-PBS if it is to be implemented and sustained with fidelity.

Purpose Statement Summary

In summary, the purposes of this study are: (a) to investigate which principal leadership skills demonstrate evidence as being most efficacious in establishing proactive school environments conducive to student and staff success, and (b) to determine if SW-PBS is a factor in the evidence of increased leadership effectiveness of principals. The following literature review is designed to more fully explore and delineate the issues and current knowledge-base associated with key principal leadership skills.

Review of Related Literature

Taking into account the challenges principals currently face and the potential SW-PBS may hold to assist in meeting the challenges, the purposes of the literature review are to: (a) identify some of the most salient features of and potential gaps in principal leadership training, (b) examine how principal leadership skills may impact teacher satisfaction and student achievement, and (c) further investigate the interface between principal leadership skills and SW-PBS. To accomplish these purposes, the review of related literature is presented in five sections. The first section is an overview of principal leadership skills as they relate to this study. The second section focuses on issues related to teacher satisfaction with respect to administrative performance. The third section addresses issues of student behavior and how they relate to the overall school climate. The fourth section provides a review of prominent features of SW-PBS and how they interface with identified principal leadership skills associated with behavior management, teacher job satisfaction and student behavior. The final section summarizes gaps in the current research base and the importance of the study.

Principal Leadership Skills

This section includes a discussion of the interface between leadership and public school law, particularly as it relates to accountability for student educational results; development of proactive systems of discipline; and ensuring safe school environments. Secondly, a review of some of the prominent foundations from which principal leadership skills have been developed is identified. Finally, mechanisms to train principals in leadership skills are reviewed.

Leadership and Federal Mandates for Accountability

Administrative leadership has been recognized as a critical factor in implementing and sustaining effective programs and practices in schools for students with and without disabilities (Crockett, 2002; OSEP, 1999; Patterson, Marshall, & Bowling, 2000; Waters, Marzano, & McNulty, 2003). Because many school districts employ site-based management procedures, decisions involving programs and practices often become the prerogatives of individual school principals and their faculties (Patterson & Protheroe, 2000; Usdan, McCloud, & Podmostko, 2000).

Public school principals are facing increasing challenges and changing professional expectations. They are charged with providing a high degree of accountability as effective instructional leaders who assure that all students are given the opportunity to reach their full potential as learners and to prepare them to be competent citizens (Leithwood, Louis, Anderson, & Wahlstrom, 2004; Porch & Protheroe, 2002). They are also charged with ensuring a safe, supportive school climate is in place (Learning First Alliance, 2001).

No Child Left Behind requirements. The No Child Left Behind Act of 2001 (NCLB) places high priority on accountability of educational results for all students; the use of effective, research-based practices; closing the achievement gap by race and class; and reducing the number of children identified for special education services (U. S. Department of Education NCLB Executive Summary, 2001). The protections and expectations in NCLB apply to all students, including those receiving special education services (Council for Exceptional Children, 2002).

Adequate yearly progress (AYP) is an integral concept of NCLB, and refers to student-demonstrated academic success as measured through standardized testing instruments. Academic subject areas are targeted for testing by grade levels, with specific emphasis placed on reading and math achievement. The results of the tests are used to assess the overall progress of individual schools, and have direct implications in terms of how those schools are rated and funded. Because NCLB specifies testing of all students, this implies that individualized education plans (IEP) for those served through special education must reflect the accommodations and modifications needed to provide access to and successful acquisition of general education curriculum content (Ysseldyke et al. 2004) to be adequately prepared and accommodated to participate in AYP measures. Principals must ensure a school environment that enhances opportunities for all students to learn and maximizes opportunities for teachers to protect instructional time to increase the likelihood that school AYP goals can be achieved.

Federal special education mandates. Congress's 1997 amendments to the Individuals with Disabilities Education Act (IDEA) also placed an emphasis on increased

accountability of educational results for students with disabilities, and for reducing the number of students placed in special education services. It mandated more communication with and direct involvement of parents in educational decision-making. It required that students who qualified for special education be served in the least restrictive environment (LRE) and to be a part of the general education classroom for as much of the school day as possible, with supports and accommodations available as deemed appropriate by their IEP. Disciplinary procedures for students with disabilities now required assurances that positive behavior supports had been instituted and functional behavioral assessments had been conducted when appropriate (U. S. Office of Special Education and Rehabilitative Services, 2003).

The recent reauthorization of IDEA signed into law December 3, 2004 continues to stress placement through the LRE, accountability of schools for the academic progress of students with disabilities, inclusion of positive behavior supports and functional behavioral assessments, and meaningful participation of parents/guardians. There continues to be an emphasis placed on educating students with identified disabilities in general education classrooms for the maximum amount of the school day deemed appropriate by the IEP team. Additionally administrators are charged with assuring several key provisions are implemented at the school site including (a) the implementation of new approaches to prevent overidentification or misidentification of students with disabilities and to better support the needs of students deemed to be "at-risk," (b) resolution sessions with parents/guardians before moving to due process, (c) providing meaningful professional development for all staff in how to identify and

implement appropriate alternative academic and behavioral strategies, and (d) ensuring adherence to laws and regulations associated with special education (Charting the Changes, 2004; Council for Exceptional Children, 2004). Laws and regulations associated with the Americans with Disabilities Act (ADA) Section 504, as well as those mandated by state and local educational agencies, must also be understood and implemented with fidelity (Byrnes, 2000; Maag & Katsiyannis, 2000; Yell et al., 2003).

Federal mandates and safe schools. Principals are also charged with maintaining and encouraging a safe, supportive school climate through NCLB and IDEA 2004 (Council for Exceptional Children, 2004; Horner et al. 2000; Usdan et al. 2000). Creating a safe school environment requires having a range of preventive measures for children's behavioral and emotional problems (U. S. Department of Education, Office of Special Education Programs, 1999; Walker & Eaton-Walker, 2000). "An important feature of schools that claim success in building safe environments is that instruction on appropriate behavior is not saved just for those students who demonstrate problems, but is designed for school-wide implementation" (Horner & Sugai, 2000, p. 231). Effective behavioral instruction is recognized to be specific; built into the general education school curriculum; applied across school-wide, classroom, and targeted settings; and focused on two basic social outcomes, positive peer relations/interactions and favorable adult judgments about the social skills (Cotton, 2003; Learning First Alliance, 2001; Sugai & Lewis, 1996).

The expectations for principals associated with being effective leaders regarding students with disabilities require not only a significant understanding of the letter of these

laws but also the spirit and intent of each mandate. This would imply a need for future and current principals to receive ongoing training in special education as well as general education law, understanding of disability categories and their implications regarding instruction, understanding of how to support students with disabilities and general education staff as inclusion becomes more prevalent, and awareness of current issues associated with special education (Monteith, 2000; Patterson & Protheroe, 2000). Unfortunately, many school principals do not receive adequate information within the principal preparation programs (Crockett, 2002; Powell & Hyle, 1997; Yell, et al. 2003; Young, et al. 2002).

Research Related to the Identification of Specific Administrative Skills

There is a growing body of literature related to key competencies exhibited by effective school administrators. Broad categories, defined as standards, were adopted by the Council of Chief State School Officers (CCSSO) in partnership with the National Policy Board for Educational Administration in 1996 to form the Interstate School Leaders Licensure Consortium (ISLLC). The Consortium, currently comprised of 23 states and the District of Columbia, developed six standards that were operationalized through sets of knowledge, disposition, and performance indicators. These standards have been incorporated into state recommendations for administrator education and certification standards in more than 40 states (Davis et al. 2005). The standards address competencies related to: (a) development of a school vision; (b) understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context; (c) collaboration with families and community members; (d) ensuring a safe,

effective, and efficient learning environment; (e) advocating and nurturing a school culture conducive to student learning and staff professional growth; (f) acting with integrity and fairness in an ethical manner; and (g) completing an approved internship (Council of Chief State School Officers, 1996; Jackson & Kelley, 2002). A variety of assessment instruments have been developed to measure completion of the above listed competencies and skills. The Interstate School Leaders Licensure Consortium (ISLLC) standards became the framework for the creation of an administrative assessment and licensure tool, the *School Leaders Licensure Assessment*, under the direction of the Educational Testing Service (ETS). The assessment is based on the ISLLC competencies which are further divided into skills specific to each competency (Hale & Moorman, 2003; Walter, 2003) and is currently required for administrator licensure in 17 states and the District of Columbia.

Administrator standards and accreditation of preparation programs. The ISLLC standards have also been adopted by the National Policy Board for Educational Administration through the National Council for the Accreditation of Teacher Education (NCATE) for accreditation review of educational administrator preparation programs (Jackson & Kelley, 2002; Young et al. 2002).

Within the NCATE standards, several are relevant to the issues of creating supportive school environments for at-risk students and students with disabilities (see Appendix A for the complete list of standards). For example, standard 2.0 includes references to leaders identifying, clarifying, and addressing barriers to student learning for diverse populations. Standard 4.0 specifically addresses the need to advocate for

students with special needs and to provide leadership to programs serving students with special needs. Standard 5.0 includes reference to educational leaders advocating for all children, including those with special needs who might be underserved. Finally, Standard 6.0 includes expectations related to leadership candidates demonstrating and applying an understanding of policies, laws, and regulations. There are no specific or targeted references in the standards associated with behavioral management but an implicit theme is evident across several with respect to school climate and safety (National Policy Board for Educational Administration, 2002).

Similar sets of standards by the National Association of Elementary School Principals (2002) and the American Association of School Administrators expand on the above set and include skills related to current federal mandates such as (a) data-based decision making, (b) planning and developing curriculum for all students, and (c) the ability to use recommendations based in research and best practice (Mid-continent Research for Education and Learning, 2001). The National Policy Board for Educational Administration (2002) provides further elaboration of competencies to demonstrate the acquisition of those standards through a set of leadership program activities to be completed during the internship. Thus, consensus with respect to key characteristics of effective school leaders appears to be emerging among major professional associations.

Administrator standards and special education. The Council for Exceptional Children (CEC) has also created a set of standards for special education administration training that is aligned with current NCATE standards. Special education administration standards include general education standards and outcomes as well as issues unique to

serving students with disabilities (Boscardin, 2004). Given the expectations and situations principals face related to special education and diverse learning needs it would be logical to create a unified system of standards similar to the CEC model, which would include training for general education administrators in special education law, characteristics of disability categories, and behavioral management strategies. To date the lack of inclusion of competencies related to special education in general education administrator training reflects the perpetuation of a dual system of general and special education that is no longer viable (Lashley & Boscardin, 2003).

When schools are faced with more significant and fundamental changes such as those involved with increased accountability through NCLB and fuller inclusion of students with disabilities in general classroom settings through IDEA 2004, specific leadership skills associated with supporting the maintenance of a positive school climate, providing appropriate professional development, and increasing venues for communication among stakeholders become more critical (Cotton, 2003; Marzano et al. 2005; Mid-continent Research for Education and Leadership, 2001).

Domains of Principal Leadership Skills

Principal leadership skills are customarily divided into three domains; transformational, managerial, and instructional (Leithwood & Duke, 1999; Murphy & Louis, 1999). Transformational and managerial skills include those more closely aligned with school culture, climate, and aspects of the day-to-day operations of a school, including behavioral management (Day, 2000; Leithwood & Duke, 1999; Peterson & Deal, 1998). In contrast, instructional leadership skills are primarily aligned with issues

associated with academic curricula (Blasé, J. & Blasé, J., 2000; Leithwood, 1992; Leithwood & Duke). Each of the three domains has been the subject of numerous studies and has a rich history within the field of educational administration. The two that are more closely aligned with the purpose and research questions of this study are transformational and managerial.

The identification of specific transformational and managerial leadership skills potentially associated with proactive school environments, behavioral instruction, and student management will be explored. Given the complexity and breadth of information associated with these skills, a thorough inclusion of all aspects of each is beyond the scope of this study. Rather, a review of some of the most salient features as they relate to this investigation is included.

Transformational leadership skills. Research and understanding of principal leadership skills has continued to evolve. A current focus of significance in the research has been transformational leadership. Transformational leadership is centered on the concept of leaders engaging and encouraging organizational members to become active and committed participants in evaluating and improving their school culture through shared decision-making and developing school-based solutions to challenges, including accepting ownership for student success (Leithwood & Jantzi, 1997; Lucas & Valentine, 2002; Valentine, 2001).

The capacities and responsibilities for leadership are shared among organizational members, thus potentially increasing the cohesion of staff members toward improving a set of common and specifically identified school goals. At the same time, there is

recognition that the principal must take responsibility and have the ultimate decision-making power for some aspects of the school culture (Day, 2000). Seven dimensions of leadership identified through transformational leadership are; (a) developing a school vision, (b) establishing goals to realize the vision, (c) developing a collaborative decision-making structure, (d) symbolizing good professional practice, (e) providing individualized support, (f) providing intellectual stimulation, and (g) holding high performance expectations (Leithwood & Duke, 1999). Transformational leadership has become an accepted model of principal instruction and training in college and university preparation programs, and is substantiated by a body of evidence that supports its contribution to the development of capacity and commitment for school personnel (Bogler, 2001; Leithwood & Jantzi, 1999; Murphy & Louis, 1999).

Managerial leadership skills. Advocates of the transformational leadership model recognize that a second set of skills associated with effective school management are needed to addresses the duties and responsibilities inherent in the day-to-day operation of schools (Leithwood & Duke, 1999; Miller, 2003; Valentine, 2001). Although many of the tasks may appear to be mundane, they are important in buffering the school environment from distractions and interruptions (Day, 2000, Levine & Lezotte, 1990). Managerial tasks involve: (a) securing adequate funding for materials and activities; (b) anticipating and addressing predictable problems; (c) ensuring compliance with district, state, and federal regulations; (d) establishing systems of communication among staff, students, parents, and the community; (e) maintaining a safe and orderly environment; and (f) maintaining the school's physical plant (Learning First Alliance,

2001; Leithwood & Duke, 1999). Other identified managerial tasks include: (a) establishing effective staffing practices, (b) providing instructional support, (c) monitoring school activities, and (d) providing a community focus (Leithwood & Jantzi, 1997). The underlying assumption is that if the principal adequately addresses and performs managerial tasks well, the work of others in the organization will be enhanced (Copland, 2001).

Research Related to Transformational and Managerial Leadership Skills

Hallinger and Heck's (1998) review of empirical research from 1980-1995 supports transformational leadership's direct positive effects on teacher satisfaction and indirect positive effects on student achievement. Specific skills demonstrated to be effective include: establishing a clear school mission, maintaining high performance expectations, gaining staff consensus, fostering cooperation, shared decision-making, and coordinating school goals with curriculum. A variety of other studies have substantiated these findings (Leithwood & Jantzi, 2000; Lucas & Valentine, 2002; Marzano, 2000; National Commission on Teaching and America's Future [NCTAF], 2002).

Managerial skills have been identified through empirical research to increase teacher satisfaction, improve school climate and culture, and/or to have indirect positive effects on student achievement. These skills include: establishment of a set of standard operating procedures and routines, provision of material resources and professional development, provision for systems to actively monitor the effectiveness of school practices, awareness and anticipation of predictable problem areas, maintaining effective communication among stakeholders, understanding and complying with regulations and

policies, and managing the school facility (Leithwood & Duke, 1999; Waters, Marzano, & McNulty, 2003). It is interesting to note that Walker et al. (1995) provided a similar set of recommendations for school-wide discipline plans that included: (a) establishment of a school mission, (b) visible, supportive principal leadership, (c) collegial commitment, (d) staff development and effective teacher-training practices, (e) high expectations set, (f) data management and evaluation, (g) articulation of clear rules and expectations, and (h) provision of a continuum of behavioral interventions including individualized support for staff and students.

Administrator Preparation

There is evidence that the curriculum of a number of educational administration preparation programs is unrelated to the daily demands of contemporary principals (Peterson, 2002; Young et al. 2002). A survey of educational leaders found 69% of the responding principals agreed that traditional leadership preparation programs were "out of touch with the realities of what it takes to run today's schools" (Hale & Moorman, 2003, p. 5).

While initiatives are currently underway to assess and remediate educational leadership training programs, it has been recognized this will take time and collaboration among a wide array of stakeholders (Young et al. 2002). Identification of aspects of preparation programs in need of change, and of those that are proving successful is currently being undertaken by a national panel of experts, the National Commission for the Advancement of Educational Leadership Preparation (Young et al., 2002). Issues

related to training in principles associated with successful integration of diverse learners are also being considered by the panel.

Administrator Preparation Programs and Special Education

Principals have identified the need for knowledge and skills associated with special education as a priority, including behavior management (DiPaola & Tschannen-Moran, 2003; Goor & Schwenn, 1997; O'Neill, Johnson, O'Donnell, McDonnell, 2001; Protz, 2005). States currently have a variety of requirements associated with administrator certification and special education. To date, nine states require aspiring principals to meet competencies related to special education, 18 require aspiring principals to take one introductory course in special education, and 20 require no coursework specific to special education (Crockett, 2002).

Assisting principals in understanding special education laws and their implications for not only establishing disciplinary procedures, but also implementing proactive systems that teach and encourage appropriate behaviors is critical (Goor & Schwenn, 1997; Porch & Protheroe, 2002; Taylor& Baker, 2002). Principals who have been exposed to special education concepts and who have an increased understanding of characteristics of specific disabilities and behavior management have demonstrated a more positive attitude towards inclusion (Praisner, 2003). Principals must have the requisite skills to foster a collaborative school environment, model positive attitudes, solve problems, and establish effective discipline procedures (Patterson, et al., 2000; Taylor & Baker, 2002). This is important from a legal standpoint given the clarity within IDEA '97 and IDEA 2004 that children with identified disabilities should be placed in

general education classrooms and educated with non-disabled peers to the maximum extent appropriate (Council for Exceptional Children, 2004; Patterson & Protheroe, 2000). It is equally important from the standpoint of instituting best educational practices that support special education teachers, general education teachers, and students with diverse needs to make inclusion successful (Patterson & Protheroe; Porch & Protheroe, 2002; Salisbury & McGregor, 2002; Walther-Thomas, Bryant, & Land, 1996). Aspiring principals benefit from training associated with establishing a set of attitudes, knowledge, and skills that form the basis of the tools they will need to prepare themselves to be school leaders who can implement collaborative school cultures supportive of all students and staff (Goor & Schwenn, 1997; Salisbury & McGregor).

Professional Development Training and Leadership Skills

Effective professional development among in-service administrators may hold equal promise as a vehicle for providing training in skills associated with principal leadership, including those related to serving students with special needs or who are identified as "at risk" (Goor & Schwenn, 1997, Praisner, 2003). Principals in the field bring a set of practical experiences, on-the-job challenges, understandings associated with the diverse schools they serve, and individual needs for ongoing support and education (Curtis & Stollar, 1996; DiPaola & Walther-Thomas, 2003; Patterson et al. 2000; Salisbury & McGregor, 2002). "The National Staff Development Council suggests that effective professional development programs should be long-term, carefully planned, job embedded, and focus on student achievement," (Peterson, 2002, p. 1). Other characteristics supported by the literature include: (a) reflective practice, (b) opportunities

for peer coaching and collaboration, (c) instructional strategies, (d) linkage to state initiatives, (e) use of information technologies, (f) the reinforcement of positive norms and assumptions, (g) linkage to the school community, and (h) a format that includes all-day, multiple-session meetings (Peterson, 2002). Further, professional development provides opportunities for reflection and skill development associated with the challenges principals are facing in applied school settings rather than within the more theoretical framework of academic preparation programs (McCarthy, 1999; Peterson, 2002).

Providing in-service principals with professional development related to the successful implementation of systems that will improve the behavioral and social skills of students is critical. Principal supports have been recognized to be essential in initiating and sustaining new practices in schools (Boscardin, 2004; Klinger, Ahwee, Pilonieta, & Menendez, 2003; Klinger, Arguelles, Hughes, & Vaughn, 2001).

Summary

The literature regarding school administrator leadership skills has established a set of expected competencies and skills that have garnered agreement among many of the primary agencies and professional organizations associated with school administration. These expectations are suggested to be important in fostering and supporting educational environments conducive to academic and behavioral success for all students, including those with more intensive needs. At the same time, there is a recognized need for more training, information, and support for principals related to issues associated with students at-risk for and identified with disabilities who exhibit behavioral problems (DiPaola & Tschannen-Moran, 2003; Patterson, et al., 2000).

Leadership and Teacher Job Satisfaction

Principals' roles related to establishing school climates and cultures that are conducive to the inclusion of students with diverse learning needs and providing teachers with supports to be successful are critical. The role of administrators in supporting fuller access to general education curriculum for students with diverse needs requires supporting collaboration and planning time for general and special education teachers, as well as appropriate in-service opportunities (Jackson, Harper, & Jackson, 2002). Teachers' understanding of diverse learning styles and needs require ongoing and well-defined professional development activities (Youngs & King, 2002). Innovative organizational and management strategies facilitate communication with families and the community, as well as staff teamwork to make best use of scarce resources (Hoachlander, Alt, & Beltranena, 2001). "Questions may create new tensions…but they should also signal the important need for ever-increasing communication and collaboration between special and general education teachers and administrators" (McLaughlin, 2001, p. 128).

When principals utilize available resources to provide certified staff with adequate time to collaborate with their peers, support their efforts to learn about and utilize effective practices and encourage active communication across stakeholders, they are providing a foundation from which certified staff job satisfaction can be established and sustained. This section will include a review of principal supports and attitudes which have been demonstrated to impact certified staff job satisfaction. It will also address specific challenges faced by principals and staff in establishing effective supports for students who exhibit challenging behaviors.

Administrative Support and Attitudes

Administrative/principal support has been identified in multiple studies as a determining factor associated with teacher job satisfaction for both general education and special education teachers (Bogler, 2001; Embich, 2001; George & George, 1995; Johnson & Birkeland, 2003; Lashley & Boscardin, 2003; Minarik, Thornton, & Perreault, 2003). Teachers relate administrator support with their sense of autonomy, belonging, competence, and commitment, among others. Principal transformational leadership has been recognized to be a significant influence in schools where teachers are supported to take on greater leadership roles and to improve their professional skills (Lucas & Valentine, 2002).

The level of administrative support regarding discipline, both in backing teachers in specific instances of student misbehavior and in establishing clear and consistent student behavioral expectations has been identified as an important factor for teachers in deciding to stay in the field (Charles, 1999; Johnson & Birkeland, 2003: Learning First Alliance, 2005; Richards, 2003). High rates of teacher turnover undermine the building and sustainability of professional development communities in schools, and may be a factor in student achievement rates (National Commission on Teaching and America's Future, 2002). "The consequences of high teacher mobility…. can be devastating. When districts fail to find and keep competent teachers, administrators must scramble to hire less qualified personnel….That, in turn, creates problems….(in ensuring) continuity of quality instruction" (George & George, 1995, p. 227).

Principals' attitudes and actions have also been identified as a pivotal feature of teacher satisfaction with inclusion of students with special needs in general education classrooms (Cook, Semmel, & Gerber, 1999; DiPaola & Walther-Thomas, 2003; Noell & Witt, 1999). General and special education teachers report an ongoing need for guidance, support, and dissemination of knowledge from principals regarding successful collaboration among staff in implementing effective programming for students, including discipline issues (Walter-Thomas & Bryant, 1996; Yoon & Gilchrist, 2003). This is particularly challenging given reports of administrators that they need information and training about special education law, implementing successful special education programs, and supporting effective interventions (DiPaola & Tschannen-Moran, 2003: Monteith, 2000; Patterson et al. 2000; Praisner, 2003).

Given the increased emphasis and legal mandates associated with AYP, inclusion of students with disabilities in general education classrooms, and proactive discipline procedures, principals' establishment of school-wide environments that support improved teacher job satisfaction and use of best practices are indicated.

Principal Leadership, Student Behavior and Achievement

Improving achievement for all students is a primary focus of general and special education. Principals are instrumental in establishing school environments where staff can provide support for all students and in creating a school community that includes all students (Patterson & Protheroe, 2000). Research has shown principal understanding about and attitudes toward inclusion are linked to improved outcomes for children with disabilities (Cook, et al., 1999; Praisner, 2003). Inclusion has also been demonstrated to

improve academic and social skills for low-achieving students who were not identified with specific disabilities (Walther-Thomas, Bryant, & Land, 1996). Inclusion requires principal support for providing the time for active collaboration between general and special educators, visible commitment on their part for the use of inclusive practices, and ongoing teacher professional development, and problem-solving support (Cook et al.; DiPaola & Walther-Thomas, 2003; Praisner, 2003).

Principal Leadership and Student Behavior

Students who exhibit inappropriate behaviors are particularly challenging for school personnel. They are less likely to be successfully integrated in general education classroom environments, and more likely to exhibit increased academic deficits (Mayer, 1995; Praisner, 2003; Smith & Katsiyannis, 2004). Research has demonstrated the need to keep students actively engaged academically to decrease the likelihood of inappropriate behaviors and increase the likelihood of school success (Coyne, Kame'enui, & Simmons, 2004; Nelson, Benner, Lane, & Smith, 2004; Wehby, Lane, & Falk, 2005). If teachers are to be successful in academically engaging students with challenging behaviors so that more time is spent in instruction, they will need appropriate material resources and professional development opportunities to do so

Particularly since the reauthorization of IDEA in 1997, schools are placing growing numbers of children with identified disabilities in the regular classroom for larger portions of the school day. It has also been recognized that a population of students exist who do not meet the criteria to receive services through special education, but who also display ongoing inappropriate behaviors (O'Neill, et al., 2001; Safran &

Oswald, 2003; Scott, 2001). "Administrators have always been charged with creating a school environment that promotes academic achievement for all students. As increasing numbers of students with behavioral and emotional issues come to school, potentially disrupting their learning and others, that challenge grows." (U.S. Department of Education, Office of Special Education Programs, 1999, p.16).

Behavior problems, lack of discipline, and concerns about school violence and student safety impact the learning environment and draw resources away from teaching and learning (U.S. Department of Education, Office of Special Education Programs, 1999; Lewis & Sugai, 1999b; Walker et al. 1995). When principals support the establishment of clear behavioral guidelines which are understood by all staff and students they increase the likelihood that more time and energy can be focused on learning (Porch & Protheroe, 2002).

Principal Leadership and Student Achievement

While principals do not necessarily have a direct effect on student achievement, they have been shown to have an important indirect effect through the establishment of high expectations for all students to learn, providing professional development supports for teachers, and maintaining clear and consistent behavioral expectations (Boudah, Logan, & Greenwood, 2001; Salisbury & McGregor, 2002; Youngs & King, 2002).

A meta-analysis of research-based studies from the 1970's through the 1990's by Waters, Marzano, and McNulty (2003) related to the effects of leadership on student achievement identified only 72 studies that met the criteria of being based on quantitative data using standardized or other verified objective measures of achievement. Of those,

58 were unpublished doctoral dissertations. The remaining 14 included 9 published in peer-reviewed journals and 5 published as technical briefs, educational or governmental reports. The majority of the studies assessed similar skills and found complementary results.

Data from the meta-analysis identified the average effect size between the relationship of educational leadership and student achievement to be .25, or a mean percentage increase/decrease impact on student achievement of approximately 10%. The authors identified two variables that indicated whether leadership will have a primarily positive or negative effect on achievement; (a) leaders properly identified and then followed through with changes to impact achievement, and (b) leaders correctly assessed the magnitude of the changes requested and tailored their leadership style to ensure successful implementation. Average effect size was computed through comparison of the correlation between student achievement on standardized tests or other objective measures of achievement (the dependent variable) and teacher perceptions of leadership (the independent variable) reported in the studies. Of the 21 leadership responsibilities significantly correlated with student achievement, nine demonstrated a correlation of 0.25 or higher. They are (Waters, Marzano, & McNulty, 2003):

- Situational awareness – is aware of the details and undercurrents in the running of the school and uses this information to address current and potential problems (r = 0.33)

- Intellectual stimulation – ensures that the faculty and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture (r = 0.32)
- Input – involving teachers in the design and implementation of important decisions and policies (r = 0.30)
- Change agent – is willing to and actively challenges the status quo (r = 0.30)
- Culture – fosters shared beliefs and a sense of community and cooperation (r = 0.29)
- Monitors / evaluates – monitors the effectiveness of school practices and their impact on student learning (r = 0.28)
- Outreach – is an advocate and spokesperson for the school to all stakeholders (r = 0.28)
- Order – establishes a set of standard operating procedures and routines (r = 0.26)
- Resources – provides teachers with materials and professional development necessary for the successful execution of their jobs (r = 0.26).

It is encouraging that the specific skills identified through this meta-analysis align with the current standards and competency indicators. Four of the skills (intellectual stimulation, input, change agent, and culture) are aligned with transformational leadership. The remaining five (situational awareness, monitors/evaluates, order, outreach, and resources) are aligned with managerial leadership. Thus, there appears to be increasing agreement regarding the skills principals should demonstrate to support

school environments conducive to increased academic achievement and behavioral competencies for all students.

The nine leadership responsibilities identified by Waters et al. (2003) as having the most significant effect on student achievement are input, change agent, situational awareness, intellectual stimulation, culture, monitors/evaluates, outreach, and resources. They have also been identified as critical in recruiting and retaining highly qualified general education and special education teachers. Further, the leadership responsibilities align with ISLLC and NCATE standards, and are supported through transformational, managerial, and SW-PBS publications.

Summary

While the literature does not support a direct link between evidence of specific principal leadership skills and student achievement, it does reinforce an indirect link that connects the principal's role in establishing a school environment built on effective practices which in turn supports student achievement (Hallinger & Heck, 1998; Horner, Sugai, Todd, & Lewis-Palmer, 2005; Leithwood & Duke, 1999). The small number of studies, however, indicates a need for more empirically-based research to verify the identification of these skills as effective indicators of links between principal leadership skills and student achievement.

School-wide Positive Behavior Supports

A promising intervention proven to impact student behavior, and indirectly student achievement, is the implementation of School-wide Positive Behavior Support (SW-PBS) (Horner et al. 2005). SW-PBS has proven to be successful in improving the

school climate for principals, certified staff, and students (Luiselli et al., 2005; Taylor-Greene et al. 1997).

SW-PBS, Transformational and Managerial Leadership

The components of successful school-wide PBS align with transformational and managerial leadership principles. The national PBS center recommends the following steps when setting up school-wide systems of discipline: (a) establish a school-wide leadership team to guide and direct the process that is representative of school staff members and parents, (b) secure administrator support and participation, (c) secure agreement and commitment from at least 80% of staff members, (d) conduct an assessment of the current discipline system, (e) establish an action plan that reflects agreed-upon goals by staff for improvement, and (f) establish a way to collect representative data to help monitor the success of the system objectively (National Technical Assistance Center on PBIS, 2004). A model based on transformational and managerial leadership skills is conducive to including the establishment of a SW-PBS initiative to implement proactive discipline procedures that support principals, teachers and students, and which addresses issues associated with supporting students with diverse needs as outlined in the NCATE standards, NCLB, and IDEA 2004.

Basic Principles of SW-PBS

School districts in 40 states and the District of Columbia are actively engaged in implementing school-wide systems of PBS to address behavioral and social skills issues (OSEP Center on PBIS, 2006). SW-PBS is a systems approach, enhancing the capacity of schools to adopt and sustain the use of effective behavioral practices for all students

(Luiselli, et. al. 2005; Stormont, Lewis, & Covington Smith, 2005). It is a proactive approach, emphasizing the efficacy of building school-wide systems that reduce the likelihood of the occurrence of problem behavior, and of actively teaching appropriate social skills as an integral part of the school curriculum (Lewis et al. 1998; Scott, 2001; Sugai & Horner, 2001).

As described earlier, SW- PBS systems emphasize efficient use of school resources through a three-tiered approach employing universal procedures of effective school management and direct teaching/modeling of school-wide procedures, secondary procedures to address the needs of students considered to be at-risk (Kern & Manz, 2004), and tertiary procedures to meet the challenges of providing meaningful support for students with chronic behavioral issues (Sugai et al. 1999). SW-PBS is identified as a "Promising Program" through the Office of Special Education Programs (OSEP), and has established a national technical assistance center at the University of Oregon. PBS for individual students with disabilities is specifically mentioned in the Part B regulations of IDEA '97 and the regulations for IDEA 2004. The inclusion of PBS in IDEA 1997 was based on sound, empirical evidence established over a number of years and studies (Michaels, Brown, & Mirabella, 2005: Turnbull et al. 2000).

A variety of studies have articulated the importance of establishing a school atmosphere that supports learning. Purkey and Smith (1983) identified four characteristics supported through research-based studies that included collaborative planning and collegial relationships, a sense of community, clear goals and high expectations, and order and discipline. They noted that consistently reinforced clear,

reasonable rules not only reduced behavior problems but also promoted feelings of pride and responsibility.

Curtis and Stoller (1996) supported the findings of Purkey and Smith and reported that regardless of the issue(s) being considered for change, collaboration is the essential foundation, and this is usually accomplished through a representative group or team of the major stakeholders. They also identified a clear plan for change, commitment of key personnel, established goals and strategies to accomplish them, and direct instruction with adequate practice and follow-up as necessary to embed problem-solving skills. Peterson (2002) reiterated the above findings by identifying critical structural arrangements (i.e., clear mission and purpose, curriculum coherence, instructional strategies, linkage to state initiatives, use of information technologies, adequate length and time structure) and cultural elements (i.e., linkage to values, community and mission, and establishing clear symbols and ceremonies). These studies add credence to the understanding that SW-PBS is not a new phenomenon, but a systematic compilation of best practices (Horner & Sugai, 2000).

The goal of SW-PBS is to increase a school's capacity to meet the behavioral support needs of all students and staff (Lewis & Sugai, 1999b). SW-PBS incorporates positive behavior interventions to teach appropriate behavior and social skills, and to identify and remediate problem behaviors. Appropriate behavior and social skills training are integrated into the school curriculum, are directly taught, regularly practiced in the settings in which they are expected to be utilized, and are reinforced through processes that are selected by the school as fitting their environment (OSEP Center on Positive

Behavioral Interventions and Supports, 2004). By reducing the numbers of inappropriate behavioral incidents and office discipline referrals (ODR), schools stand to garner more teaching and learning time (Horner et al. 2005; Liapsun, Jolivette, & Scott, 2004; Luiselli et al. 2005). This may have a secondary, indirect effect on improving student academic outcomes (Scott & Barrett, 2004; Witt, VanDerHeyden, & Gilbertson, 2004).

SW-PBS emphasizes operationally defining outcomes, incorporating research-validated practices, and providing systems changes in schools that are consistent (Luiselli et al. 2005; Nelson, 2000; OSEP Center on Positive Behavioral Interventions and Supports, 2005). It emphasizes the importance of training schools in establishing systems, practices, and data-based decision-making to support socially important outcomes for students and staff related to academic and behavioral achievement (Scott, 2001; Sprague, Walker, et al. 2001).

The seven recommended components of effective school-wide PBS are: (a) an agreed upon and common approach to discipline, (b) a positive statement of purpose, (c) a small number of positively stated expectations, (d) procedures for teaching expectations to students (e) procedures for encouraging appropriate behaviors, (f) procedures for discouraging inappropriate behaviors, and (g) procedures for monitoring the effectiveness of the system through data (Lewis & Sugai, 1999a; National Technical Assistance Center on PBIS, 2004). School-wide implementation of PBS is designed to be preventative and to establish a supportive school community (Guthrie, 2002) and serves as a means to identify students who are in need of more intensive supports and interventions. This is beneficial not only to students, but to principals and teachers who may have had little to

no instruction in principles of behavior management or characteristics of students who are at risk for or who have been identified with specific disabilities (Walker & Horner, 1996).

Secondary or targeted levels of intervention assist school personnel in identifying setting and environmental factors, as well as skill deficits, which may underlie student behaviors that are inappropriate but unlikely to be considered severe. These are also proactive in nature (Horner et al. 2005; Nelson et al. 1999) and align with the inclusion of response to intervention (RTI) methodology in accurately identifying students for referral to special education services identified in IDEA 2004. Social skills' training for identified and specific skill deficits has been recognized as a viable intervention at the secondary level (Gresham, 1998; Lane, Wehby, et al. 2003; Mayer, 1995; Walker et al. 1995). Training personnel to conduct brief functional assessments, complete screening instruments, conduct semi-structured student and environmental observations, and re-teach behavioral expectations along with giving students the opportunity to practice the skills, have been relatively simple interventions that have reduced and/or alleviated second-tier behavioral concerns (Kamps, Kravits, Stolze, & Swaggart, 1999). Some SW-PBS teams and school staffs have employed a second team to address and implement targeted interventions so that more staff members are knowledgeable regarding behavioral management strategies (Scott et al., 2005; Todd, Horner, Sugai, & Colvin, 1999).

Tertiary, or individual, intensive interventions are specifically matched to the identified behaviors that are chronic and/or more severe in nature. Functional behavioral

assessments (FBA) would typically be utilized at this level. Principals and other SW-PBS team members may receive training in developing and implementing an articulated set of procedures for intensive/tertiary referrals. FBA's also support a proactive school climate by effectively and efficiently addressing problematic behaviors, and helping to inform the development of appropriately targeted behavior support plans (Alberto & Troutman, 2003; Sugai & Lewis, 1999). SW-PBS provides supports for principals and staff in understanding the continuum of behavioral supports which are necessary to adopt and sustain a comprehensive set of procedures to support all students in an effective and efficient system that meets both the letter and spirit of the laws and regulations with which schools must comply (Dunlap et al. 2000; Safran & Oswald, 2003; Sugai et al. 1999).

SW-PBS and Principal Leadership Skills

Colvin and Sprick (1999) described ten principal leadership strategies observed to be effective in establishing SW-PBS and in effecting change in a school. The strategies are:

1. Maintaining standards regarding which innovations their school would employ
2. Making a public statement of support once the faculty selected an innovation
3. Establishing a representative leadership team to lead the process of implementing the innovation
4. Supporting the team members to have the time and resources to accomplish the task
5. Guiding rather than dictating decision-making

6. Taking a leadership role to model and reinforce implementing the innovation with fidelity
7. Regularly attending and participating in team meetings
8. Providing recognition to faculty and the team for their hard work
9. Serving as the spokesperson to community stakeholders about the worth and importance of the innovations
10. Establishing objective means to monitor and provide feedback to all staff about the effect of the innovation

The authors based these ten recommendations on their combined experiences of work in schools with many principals and published research regarding best practices in administrative leadership.

Taylor-Greene and Kartub (2000) described the implementation of SW-PBS over a period of several years at the school in which they were the school administrators. SW-PBS was effective in yielding significant decreases in office discipline referrals (ODR). Between the school years of 1993-1994 (when SW-PBS was first introduced) and 1998-1999, referrals dropped from over 5,000 to approximately 800. They reported other outcomes associated with SW-PBS implementation including all adults in the school operating from a positive team approach, staff encouraging students by teaching and reinforcing appropriate behavior, and an overall school climate described as proactive and positive. The authors suggested long-term strategic planning based on five SW-PBS principles: (a) focusing on the articulated school improvement goals, (b) a high degree of

administrative support, (c) teamwork, (d) reinforcement for all students, and (e) continuous program evaluation through data analysis and other established indicators.

SW-PBS, Professional Development Training, and Principal Leadership Skills

Professional development training in SW-PBS for school teams provides one viable means to initiate and sustain its use. The training of representative school teams, which include the administrator, in school-wide positive behavior support includes guidance in how to obtain and utilize input from all stakeholders (Luiselli et al. 2005). Strategies for active assessment of the school environment at school-wide, classroom, non-classroom, and individual student levels are taught and modeled by PBS trainers.

Knowledge and implementation of effective research-based behavior management practices assist teams in developing a repertoire of skills aligned with the three-tiered model of prevention (Porch & Protheroe, 2002; Sugai, Hagan-Burke, & Lewis-Palmer, 2004). Practices to foster and encourage a school-wide culture and to facilitate outreach to parents and the community encourage the implementation of transformational leadership whereby team members take increasing responsibility for establishing and sustaining the SW-PBS process (Colvin & Sprick, 1999). The principal and team members are instructed in how to use objective data to monitor and evaluate current systems and practices, and the necessity for the provision of resources to support the implementation and sustainability of PBS (Horner et al. 2005; Lewis & Sugai, 1999a; 2002; Scott & Hunter, 2001).

SW-PBS in-service training is a viable means for principals to enhance their expertise in implementing transformational and managerial leadership skills associated

with effective behavior management. Principals are encouraged to actively participate in and support SW-PBS while encouraging other staff members to lead the process. It also affords the opportunity for administrators and school teams to identify the issues unique to their school environment while they are developing the skills to proactively address them.

SW-PBS Summary

School-wide PBS has demonstrated improvement in the overall social climate of schools as well as providing appropriate intervention programming for students with high-risk problem behavior (OSEP Center on Positive Behavioral Interventions and Supports, 2004). Empirical research supports the SW-PBS process and documents indirect academic and direct behavioral outcomes for students (Horner et al. 2005). Decreases in office discipline referrals have been demonstrated to yield increased opportunity for academic learning time. PBS schools have documented decreased ODR, thereby increasing the likelihood of increased opportunity for academic learning time (Scott & Barrett, 2004; Taylor-Greene & Kartub, 2000).

Building on the previous reviewed research, Table 1 provides a synthesis of recommended leadership skills associated with transformational, managerial and behavioral management and the intersection with SW-PBS. This summary will provide the foundation for exploring the relationship between principal leadership skills and SW-PBS.

Table 1

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Transformational Skills											
Leads staff/teams in establishing a school vision	X	**X**	**X**	**X**	**X**	**X**	**X**			**X**	**X**
Leads staff in establishing a set of goals to implement the vision	**X**	**X**	**X**	**X**	**X**	**X**	**X**		**X**	**X**	**X**
Actively encourages staff input and participation to prioritize goals	**X**	**X**	**X**	**X**	**X**	**X**	**X**			**X**	**X**

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Works toward whole staff consensus on important school-wide issues/goals	**X**		**X**	**X**	**X**	**X**	**X**	**X**		**X**	**X**
Models and uses problem-solving skills to help staff reach consensus	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**			
Uses data to help staff prioritize goals	**X**			**X**	**X**	**X**	**X**		**X**	**X**	**X**
Maintains performance expectations	**X**	**X**	**X**	**X**	**X**	**X**		**X**			

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Encourages/supports staff to self-evaluate progress in implementing goals	**X**	**X**	**X**	**X**	**X**	**X**				**X**	
Provides professional development activities to support goals	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		**X**	**X**
Provides resources to support goals		**X**	**X**	**X**		**X**	**X**	**X**		**X**	**X**
Models skills that support goals/change agent	**X**	**X**	**X**	**X**		**X**	**X**	**X**		**X**	
Establishes leadership teams as needed	**X**	**X**	**X**			**X**	**X**	**X**	**X**	**X**	**X**

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Managerial Skills											
Provides and enforces clear school-wide structures	**X**	**X**			**X**	**X**	**X**			**X**	
Provides and enforces clear school-wide procedures					**X**	**X**	**X**			**X**	
Consistently monitors/modifies school-wide structures/ procedures as needed & apprises staff of changes	**X**				**X**	**X**	**X**			**X**	
Anticipates predictable problems, develops means for responding	**X**	**X**	**X**	**X**	**X**	**X**	**X**			**X**	

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Assures school is in compliance with district, state, federal regulations/politics		**X**	**X**	**X**	**X**	**X**	**X**				
Promotes staff cooperation and cohesion	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**			
Provides staff with materials, resources, shared planning times as needed	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		**X**	
Advocate & spokesperson for the school	**X**	**X**				**X**		**X**	**X**		**X**

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Behavioral Management Skills											
Actively exposes staff to research/rationale supporting school-wide behavioral management systems					**X**		**X**			**X**	**X**
Includes staff in decision-making regarding behavioral management issues	**X**					**X**	**X**	**X**	**X**	**X**	**X**
Establishes leadership team to guide implementation of proactive school-wide behavioral management system					**X**	**X**	**X**	**X**	**X**	**X**	**X**

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Publicly supports team efforts	**X**					**X**	**X**	**X**	**X**		**X**
Active participant in team	**X**						**X**	**X**	**X**	**X**	**X**
Supports team in formulating school-wide behavioral management action plan							**X**	**X**		**X**	**X**
Provides resources to implement school-wide proactive behavioral management plan							**X**	**X**		**X**	**X**

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Supports and provides recognition for staff who implement proactive behavioral management						**X**	**X**	**X**		**X**	
Supports and provides recognition for students who display improved behavior/social skills					**X**	**X**	**X**		**X**	**X**	**X**
Regularly informs students, parents & community stakeholders regarding procedures, and/or progress toward meeting school goals	**X**	**X**	**X**		**X**	**X**	**X**	**X**	**X**	**X**	

Table 1 (continued)

Matrix of Primary Sources for Identification of Principal Leadership Skills

Source	Leithwood et al., (2004)	Leithwood & Duke (1999)	Hallinger & Heck (1998)	Jantzi & Leithwood (1996)	Valentine & Bowman (1986)	Waters et al., (2003)	OSEP Center on PBIS Blueprint (2004)	Colvin & Sprick (1999)	Taylor-Greene & Kartub (2000)	Lewis & Sugai, (1999)	Horner et al., (2005)
Consistently maintains agreed upon school-wide behavioral management standards, procedures, and systems	**X**				**X**	**X**	**X**	**X**	**X**	**X**	
Ensures all staff know, understand, and follow behavioral management procedures						**X**	**X**	**X**	**X**	**X**	

Summary

The practices, systems and data decision-making strategies employed through SW-PBS are research-based and align with NCLB and IDEA 2004 requirements associated with employing scientifically-based research and practices (OSEP Center on Positive Behavioral Interventions and Supports, 2004). SW-PBS literature identifies the administrator's participation as a member of the school PBS leadership team as essential,

and publications have included principals' reports of improved school environments with the implementation of SW-PBS (Colvin et al. 1996; Nersesian, Todd, Lehmann, & Watson, 2000; Taylor-Greene & Kartub, 2000). However, to date research has not been conducted that examines the relationship between critical administrator skills and the establishment of SW-PBS relative to certified staff job satisfaction and/or student behavioral performance.

Statement of Purpose

This study was designed to (a) identify key administrative leadership skills associated with socially proactive school environments, (b) examine the relationship between SW-PBS implementation and increased evidence of those leadership skills, (c) examine the relationship between evidence of those skills and improved certified staff job satisfaction and (d) examine leadership skill variables associated with SW-PBS and recommendations from the field that support increased certified staff job satisfaction, effective student behavioral management and principal leadership skill acquisition.

Research Questions

This study was designed to answer the following research questions:

1. Is there agreement between principals and certified staff as to the identification of key leadership skills associated with proactive school environments in SW-PBS and non-PBS schools?
2. Is there agreement between principals' and certified staffs' rating scores of the evidence of principal demonstration of the identified key leadership skills in SW-PBS and non-PBS schools?

3. Do certified staff members report higher rates of job satisfaction in SW-PBS schools than certified staff members report in non-PBS schools?
4. Is principal effectiveness identified as a factor related to higher certified staff job satisfaction in SW-PBS or non-PBS schools?
5. Are principal behavior management effectiveness and SW-PBS status predictive of certified staff job satisfaction?

Significance of Study

Research-based studies from a variety of sources have yielded a substantial body of work that can potentially serve as a guide in identifying specific leadership skills that are important in establishing socially effective, efficient and proactive school environments conducive to supporting principals, staff and students (DiPaola & Tschannen-Moran, 2003; Jantzi & Leithwood, 1996; Marzano et al. 2005). Environments which are safe, orderly, and have clear expectations for all members of the school community may help to lower incidents of inappropriate behavior and may as a secondary outcome increase the amount of time available for effective instruction (Horner et al. 2005; Liapsun et al. 2004; Nelson, 2000).

Given that SW-PBS is currently being implemented throughout the United States, it is imperative to continually investigate the relevance and accuracy of the training and recommendations participants receive (Horner et al. 2005). This study can help to establish an initial foundation of empirically-based research related to identifying principal leadership skills in schools implementing SW-PBS which are valued by certified staff and principals (Stichter & Conroy, 2004). Second, it can provide

information about the evidence of those skills in schools with varying demographic variables, thus potentially facilitating the generalization of the findings (Stichter & Conroy, 2004). Third, it may help to explicate an aspect of SW-PBS effectiveness that has been identified as critical to successful implementation (Kern & Manz, 2004).

SW-PBS may provide an important link between general and special education research, particularly in skills associated with the establishment and sustainability of proactive school environments where a continuum of behavioral instruction and supports can support the acquisition of behavioral management skills for teachers and other school staff, and behavioral competence for all students. As researchers, experts, and practitioners across disciplines within education have articulated throughout writings cited in this study, general education and special education expectations and challenges are increasingly aligned. This study can help establish a line of research to elucidate which specific leadership skills are conducive to establishing and maintaining proactive school environments for the diverse populations we serve.

Need for Study

To date there have been no studies related to the interface between SW-PBS and the leadership skills of principals. References to the necessity of active and effective administrator involvement in SW-PBS literature (Colvin & Sprick, 1999; Odom et al. 2005; Lewis & Sugai, 1999a; OSEP Center on Positive Behavioral Interventions and Supports, 2004; Sugai, Hagan-Burke, & Lewis-Palmer, 2004; Sugai et al. 1999), suggest there is reason to investigate which leadership skills are correlated with effective implementation of SW-PBS.

General education researchers have continued to explore, refine, and delineate specific leadership skills principals should demonstrate to increase their effectiveness in the domains of transformational, managerial, and instructional skills (Cotton, 2003; Marzano, Waters, & McNulty, 2005). Leadership skills in these areas are essential to providing environments conducive to effective schools. However, a significant area of concern identified by teachers and principals is the lack of sufficient training and support in behavior management skills (Abbey & Esposito, 2001; DiPaola & Tschannen-Moran, 2003; Johnson & Birkeland, 2003; Landrum & Tankersley, 1999; Patterson, Marshall, & Bowling, 2000; Simpson, 2004; Yoon & Gilchrist, 2003). Special education researchers have identified skills principals should demonstrate to provide environments conducive to the educational progress and inclusion of students at risk for and/or identified with disabilities (Cook et al. 1999; Miller et al. 1999; Nelson, 1996; Salisbury & McGregor, 2002). Taken together, these separate areas of research provide information related to the need for the development and implementation of cohesive strategies to address effective behavior management of all students. However, further research is needed to clarify the role of the principal in the SW-PBS process, and the specific skills inherent in that role, to increase the likelihood of the establishment and sustainability of proactive school environments that promote the potential for success of all teachers and students.

Definition of Terms

For the purposes of this study, the following terms were operationally defined as follows:

School-wide Positive behavior support (SW-PBS): a broad range of systemic and individualized strategies for achieving important social and learning outcomes while preventing problem behavior (OSEP Center on PBS, 2004). Earlier literature regarding PBS was identified as "EBS" (effective behavior support). Additionally, current literature sometimes uses the acronym "PBIS" (positive behavioral interventions and supports).

Proactive approaches: positive and constructive problem-solving approaches designed to prevent problem behaviors, imply anticipating where and when problems may occur, and teaching appropriate behaviors (Charles, 1999; Walker, Colvin, & Ramsey, 1995).

Effective practices: those that have been empirically proven to result in positive, durable student outcomes that have been replicated in research studies in diverse locations and across a range of student populations (Nelson, 2000).

Competencies: evidence of broadly defined abilities that are not identifiable, observable or measurable in and of themselves.

Skills: evidence of specific actions or abilities that are identifiable, observable, and measurable.

Transformational leadership: "where a principal establishes a belief system and related practices that disperse leadership and ownership for success across a wide segment of the school faculty" (Valentine, 2001, p. 1).

Managerial leadership: leadership encompassing principal tasks associated with the effective daily management of the school, including maintaining an orderly school through organizational stability, buffering the curriculum and instruction from excessive distractions, ensuring that routine organizational tasks are performed correctly, and providing adequate material and financial resources (Leithwood & Duke, 1999).

Major discipline offenses: incidences resulting in in-school suspension, out-of-school suspension and/or expulsion.

School climate: a school's personality, or pervasive atmosphere, that is discernible by students and staff and which may affect their behaviors.

School culture: the norms, values, beliefs, rituals, and traditions of a school that have developed over time and are accepted by the group members (Peterson & Deal, 1998).

CHAPTER II

METHODOLOGY

Overview

This correlational study employed a mixed-method design, identified as appropriate for the exploration of effective practices in naturalistic contexts where experimental control may not be feasible and where a complementary set of information would more effectively inform practice (Creswell, 2003; Odom et al. 2005). The study is exploratory in that, to the best of the investigator's knowledge, no previous studies have been conducted regarding identification of key principal leadership skills and implementation of SW-PBS.

As previously outlined in Chapter I, the four primary purposes of the study were as follows:

1. Identify key administrative leadership skills associated with socially proactive school environments.
2. Examine the relationship between SW-PBS implementation and increased evidence of those leadership skills
3. Examine the relationship between evidence of those skills and improved certified staff job satisfaction
4. Examine leadership skill variables associated with SW-PBS and recommendations from the field that support increased certified staff satisfaction, effective behavioral management and principal leadership skill acquisition.

Design

A combination of survey data and a case study format were utilized to form a mixed-method design. The study was conducted in four phases: (1) development of a survey instrument (questionnaire) by the investigator, (2) distribution of questionnaires to selected schools and analysis of results, (3) collection and analysis of school demographic data, and (4) case studies conducted at identified schools. Phase 1 included the synthesis of key literature associated with principal leadership skills and SW-PBS, identification of a set of skills supported by the literature as important variables, and the development of a questionnaire based on the identified skills. Phase 2 included identification of SW-PBS and non-PBS schools to participate in the study, distribution of the questionnaire, and analysis of the results. Phase 3 involved analyses of the demographic data and its relationship to results on individual questionnaire items and subscales, as well as the overall results. In Phase 4, three of the schools identified in Phase 2 participated in a case study format.

Procedures

Phase 1: Development of Survey Questionnaire

Selection of key leadership skills. Principal leadership encompasses a set of broad, deep and complex skills. This study was primarily concerned with identifying skills associated with managerial and transformational leadership, which align most closely with the administrator skills recommended through SW-PBS literature (Heck & Hallinger, 1999; Horner et al. 2004; Leithwood & Duke, 1999; Leithwood & Jantzi, 2000; Lewis & Sugai, 1999a; Lewis, Sugai, & Colvin, 1998; Valentine, 2001). To

identify the skills, a five-step procedure was employed. In Step 1, literature from transformational, managerial, and SW-PBS sources were reviewed and summarized as reported in the Literature Review section. In Step 2, skills identified through the literature as being most representative were cross-referenced (see Table 1). In Step 3, the prevalence with which the skills were identified within and across representative literature for transformational, managerial and behavior management leadership skills was coded. In Step 4, the identified skills were selected. A minimum criterion was set whereby the skill was identified at least three times per discipline (general education administration literature for transformational and managerial leadership skills and SW-PBS literature for behavior management skills) in sources that were peer-reviewed. In Step 5, the skills were scrutinized to determine that they were stated in operational terminology.

Development of the questionnaire instrument. A Likert Scale questionnaire format is a viable method for conducting questionnaire research. The Likert Scale format is recommended when attitudes or opinions are being measured (Suskie, 1992). It elicits scaled responses in which the attitudes of the respondent are measured in increments indicating highly favorable to highly unfavorable (Rea & Parker, 2005). Rating scales are not designed to capture opinions per se, but to capture estimations of magnitude. Data from Likert Scales are identified as quantitative (Hodgson, 2003). Likert items produce weighted responses that can be converted and analyzed statistically in a number of formats, thereby potentially yielding more in-depth analysis of results as compared to other types of surveys (Barnette, 2001; Borg & Gall, 1989).

Construct validity of questionnaire. Construct validity of the questionnaire was addressed through three steps. In Step 1, guidelines for survey research from *The Survey Research Handbook, 3rd Ed.* (Alreck & Settle, 2004), *Survey Research Methods, 2nd Ed.* (Babbie, 1990), *Designing Surveys: A Guide to Decisions and Procedures, 2nd Ed. (*Czaja & Blair, 2005), and *Designing and Conducting Survey Research: A Comprehensive Guide, 3rd Ed.* (Rea & Parker, 2005) were reviewed. From these sources, the following decisions were made: (a) a comparison group would be comprised of a random stratified sample, (b) the first section of the questionnaire would address principal leadership skills and subsequent sections would address demographic data and participation in SW-PBS training, (c) the first section of the questionnaire would employ Likert Scale questions and the sections addressing demographic data and SW-PBS training would employ forced choice and open-ended questions.

In Step 2, survey instruments which (a) have established reliability, (b) specifically measure principal leadership skills, (c) use a Likert Scale format, and (d) are recognized as viable instruments in the field of education through their inclusion in the *Handbook of Tests and Measurement in Education and the Social Sciences* (Lester & Bishop, 1997), were reviewed for overall format construction and design of response statements. Those reviewed were the Audit of Principal Effectiveness (APE) (Valentine & Bowman, 1988a), the Principal Leadership Questionnaire (PLQ) (Jantzi & Leithwood, 1996), the Purdue Teacher Opinionnaire (Bentley & Rempel, 1970), the Principal Performance Rating Scale (Weiss,1989), and the Communication Effectiveness Questionnaire (Viggiano, 1990).

Each of the example instruments listed above employed a statement format for responses. Four of the five utilized only statements phrased in the affirmative. Additionally, four of the five organized the statements by specific domains or factors. The questionnaire constructed for this study, The Principal Leadership Skill Questionnaire, followed these basic guidelines by utilizing statements phrased in the affirmative and organizing the questions by the factors of transformational, managerial, and behavior management skill sets.

The Likert Scale constructed for this study employed a scale of 1 to 5 for each of two sets of responses to the 31 leadership skills presented. On the left side respondents assessed the importance of each skill by indicating a 1 for "strongly disagree", a 2 indicating "disagree", a 3 indicating "neutral/not sure", a 4 indicating "agree", and a 5 indicating "strongly agree." On the right side of the scale, respondents rated the principals' overall skill level for each of the 31 skills by indicating a 1 for "does not exhibit this skill", a 2 for "exhibits skill but is not effective", a 3 for "is somewhat effective", a 4 for "is effective", and a 5 for "is very effective" (See Appendix B for complete questionnaire).

In Step 3, the questionnaire was (a) reviewed by an expert in SW-PBS and an expert in principal leadership, (b) reviewed by two survey development experts and (c) revised according to their recommendations.

Content validity of questionnaire. The 31 items selected for inclusion in the questionnaire were grouped according to their alignment with transformational (items 1-11), managerial (items 12-19), and behavior management (items 20-31) principal

leadership skills as derived from the Matrix of Primary Sources for Identification of Principal Leadership Skills (Table 1, pp. 42-50). The specific items included in the questionnaire were cross-referenced and aligned to those identified through Phase 1. The items were verified to assure they were stated in operational terms. Operationalization of leadership skills was necessary to provide clarity and uniformity regarding what was specifically being evaluated by the subjects (Weisberg, Krosnick, & Bowen, 1996; Tull & Albaum, 1973). Operational variables clarify the meaning of important terms in a study so that readers are more likely to understand the precise meaning the researcher intends (Gay & Airasian, 2003).

The selected skills were evaluated by two recognized researchers, one with SW-PBS expertise and one with principal leadership expertise, to provide recommendations associated with (a) clarity of wording, (b) usefulness of each question, and (c) recommendations to delete original questions or to include additional questions (Alreck & Settle, 2004; Czaja & Blair, 2005; Rea & Parker, 2005).

Phase 2: Questionnaire Distribution, Administration, and Analysis

Preliminary power analysis. A preliminary power analysis was conducted under the supervision of the director of the University of Missouri-Columbia Social Sciences Statistics Center to identify the approximate number of study participants needed to achieve a power equaling .80 at a 95% confidence level with analysis computed for 2-4 groups (Gersten et al. 2005, Rea & Parker, 2005, Tabachnick & Fidell, 2001). Given an estimated average population of certified staff per school of 15 members, it was determined that a range of 24-30 schools (360-450 participants), was a probable estimate

to yield an acceptable effect size regardless of whether the data was analyzed by building or individual.

Participants and setting. Participants and setting are discussed in two parts: those participating in SW-PBS and those included in the comparison group.

SW-PBS participants and setting. Fifteen elementary schools in Missouri representing diverse demographic populations and geographic locations and which were verified to have been implementing SW-PBS with fidelity for a minimum of two years were selected through stratified random sampling. Because the first year of PBS is typically a training year, only schools in their second or subsequent years of implementation of recommended SW-PBS strategies were included.

To be identified as implementing SW-PBS, the schools: (a) had a designated SW-PBS team, (b) verified the team met on a regular basis, (c) identified the mission statement and set of expectations employed, and (d) verified an action plan existed to guide SW-PBS implementation. Additionally, the schools provided evidence of scoring 80% or above on the School-wide Evaluation Tool (SET) within a twelve month period prior to being included in this study (Sugai, Lewis-Palmer, Todd, & Horner, 2001). The SET assesses the level of fidelity with which SW-PBS is being implemented within a given school, has been demonstrated to meet basic psychometric criteria as a measurement tool, and can provide an objective assessment of the evidence of the primary prevention (universal) features within a school (Horner, et al. 2004).

A series of steps were employed to accurately identify elementary schools in which SW-PBS was being implemented with fidelity. First, a database supplied by the

University of Missouri Center for School-wide PBS of all elementary schools within Missouri which had participated in formal SW-PBS training conducted by certified PBS trainers from 2000 through 2005 was secured. Second, the state PBS coordinator assigned by the Missouri Department of Elementary and Secondary Education was contacted to verify which elementary schools within the state were currently implementing SW-PBS. Third, personnel from each of the nine regional professional development centers within Missouri were asked to review the proposed list of SW-PBS schools within their region to verify its accuracy and to identify those that had met the 80% SET criterion within the last 12 months. Fourth, school district SW-PBS personnel and administrators from the identified schools were contacted by telephone, mail and/or email to verify current SW-PBS implementation status as previously outlined, and to indicate their willingness to participate in the administration of the questionnaire to building-level certified staff and administrators. Fifth, a database of all elementary schools and their relevant demographic data (size, free and reduced lunch percentage, ethnic diversity, population, geographic location) within Missouri was provided by the University of Missouri-Columbia Office of Social and Economic Data Analysis (OSEDA). Selection of these demographic characteristics and the decision to place the identification of a mixed sample of elementary schools representing low, medium, and high percentages of students eligible to receive free and reduced lunch as a first priority were determined based on recommendations from the professional literature (Nelson, 2000; Nelson et al. 2003; Scott & Nelson, 1999; Sugai et al. 2005; Walker, et al. 1999) and from a review of the data OSEDA annually collects, analyzes and reports to the

Missouri Department of Education (DESE). Data related to these characteristics is also collected annually and reported by the National Center for Education Statistics (Sable, Thomas, & Shen, 2006).

From the OSEDA database and the list of elementary schools verified through the steps outlined above as implementing SW-PBS with fidelity, a final list of 24 SW-PBS schools from which to draw the sample was constructed. An a priori decision was made to identify schools based on matching as closely as possible to Missouri population patterns utilizing the data available from OSEDA representing all elementary schools within the state for the 2005-2006 school year.

First the SW-PBS list of 24 schools was sorted according to free and reduced lunch percentage status as low (less than 25%), medium (between 25 and 50%) or high (greater than 50%). Elementary schools in Missouri demonstrated 18.12% low, 30.05 % medium and 51.83% high rates of free and reduced lunch. The 16 SW-PBS schools selected yielded a distribution of 25% low, 31.25% medium, and 43.75% high. These schools represented a data pattern similar to the Missouri's and were within a 10% range for the state averages per category.

Next the list was sorted according to the percentage of students per elementary buildings in Missouri classified as representing minority groups (other than white/Caucasian) utilizing the categories of low (less than 25%), medium (25-50%) or high (greater than 50%). The state distribution demonstrated 51.87 % of all schools were classified as low, 21.22 % as medium and 27.9% as high. The 16 SW-PBS schools first selected through free and reduced lunch percentages yielded a minority distribution of

56.25% classified as low, 25% as medium, and 18.75% as high. Because the minority distribution for the SW-PBS schools first selected through free and reduced lunch was distributed within 10% ranges for minority status as well, this sample was retained.

Third, the list of 16 schools identified through free and reduced lunch and minority status was sorted according to numbers of students enrolled. Approximately 18.75% were categorized as small (1-250 students), 43.75% as medium (251-500 students) and 31.25% as large (larger than 500 students). The OSEDA data base demonstrated enrollment percentages of 31.8% as small, 50.64% as medium, and 17.57% as large. Although these percentages did not retain a 10% match per category, the largest differential was 13.68%. Given that the overall distribution pattern was similar and the first two categories of free and reduced lunch and minority status had been met, this sample was retained.

Finally, the list was sorted by geographic location. Approximately half of the 16 SW-PBS schools were classified as rural, small town, or mid-sized city and the other half as city or city/fringe. The OSEDA data base demonstrated relatively equivalent percentages of 49.17% classified as rural, small town or mid-sized city and 50.83 as city or city/fringe. The characteristics associated with geographic locations of the stratified random sample of 16 SW-PBS schools initially identified represented a similar pattern to schools overall within Missouri.

In summary, the stratified random sample of 16 SW-PBS schools was identified by aligning as closely as possible with the percentage guidelines as outlined above. The schools were selected in order by the following categories: (1) free and reduced lunch

percentages, (2) percentage of students by minority status other than white/Caucasian, (3) size of school population, and (4) geographic location.

The identified schools were contacted via the building principals to invite them to participate. Principals indicating a willingness to allow their schools to participate were requested to sign a formal letter of consent (see Appendix C). Fifteen of the 16 agreed to participate and returned the signed formal letters of consent. The loss of one school in the sample did not appreciably alter the demographic characteristics of the sample or their alignment with Missouri elementary school demographics.

Participants and setting in comparison schools. Fifteen elementary schools in Missouri which overall represented complementary demographic characteristics and geographic regions to the identified SW-PBS schools included in the study were selected through stratified random sampling (Gay & Airasian, 2003; Gersten, et al. 2005; Rea & Parker, 2005) as the comparison group. This methodology was employed through a series of steps. First, an a priori decision was made to match the schools as closely as possible across the first two variables of free and reduced lunch percentages and percentages by minority status. Second, after a possible sample had been derived related to these variables, the last two variables of size of school population and geographic location would be matched as closely as possible. Third, the OSEDA database would be analyzed to procure a list of possible schools to match the demographic characteristics in the same order of priority used in the selection of the SW-PBS sample with the following guidelines: (1) free and reduced lunch percentage within a 10% range of the SW-PBS sample, (2) minority status representative across the 3 categories as previously outlined

within a 10% range of the SW-PBS sample, (3) number of students enrolled across the 3 categories as previously outlined within a 15% range of the SW-PBS sample, and (4) geographic locations represented across the 2 categories within a 15% range.

For the 15 identified schools in the comparison sample, the following demographic characteristics were obtained:

- free and reduced lunch percentages of 20% low, 33.3% medium, and 46.7% high, all within a 10% range of SW-PBS sample schools
- minority status of 46.7% low, 33.3% medium, and 20% high, all within a 10% range of SW-PBS sample schools
- number of students enrolled of 20% small, 60% medium, and 20% large, all within a 15% range of SW-PBS sample schools
- geographic location of 60% rural/small town/mid-sized city and 40% city or city/fringe, all within a 15% range of SW-PBS sample schools

In summary, the criteria established for the selection of the comparison schools related to demographic characteristics were met. Selection of schools to be included in this phase was in part determined by demographics and geographic locations in order to achieve results that are more representative of schools overall within Missouri. Demographic variables have been identified as potentially significant when investigating the relationships between principal behaviors, teacher perceptions, and student achievement (Hallinger & Heck, 1998; Kern & Manz, 2004; Leithwood et al. 2004). The decision to utilize random stratified sampling is appropriate to focus attention on the primary independent variable of the effect of PBS implementation and to decrease the

likelihood of confounding variables that could emerge if the comparison group schools varied significantly in terms of demographic factors (Alreck & Settle, 2004; Weisberg et al. 1996).

Other demographic data collected for the 30 schools were: (a) number of certified staff employed, (b) discipline records related to major offenses (in-school and out-of school suspensions and expulsions) and numbers of these associated with students with disabilities (and by E/BD disability), (c) standardized academic scores related to math and reading and (d) percentage of students receiving special education services (and by E/BD disability). These data are available and were collected through the Missouri Department of Elementary and Secondary Education (DESE). Data was collected for the 2002-2003, 2003-2004, and 2004-2005 school years related to discipline records and standardized academic scores. Records for 2005-2006 were unavailable. The number of certified staff employed and percentage of students served through special education were reported for the 2005-2006 school year.

Survey distribution and administration. As previously stated, the questionnaire was administered in 30 schools – 15 implementing SW-PBS and 15 not. Prior to distribution, permission from schools was obtained through the following steps: (1) all requirements, forms, and timelines to obtain IRB approval were met prior to contacting individual schools, (2) a formal introductory letter to the principal of each school was sent outlining the purpose of the study, procedures and timelines, and what activities the school was being requested to complete (see Appendix B), and (3) principals were contacted by the investigator to discuss the study and to obtain formal written consent

from the principal. The decision to personally contact the principals was made to address issues of low response rates potentially inherent in surveys (Alreck & Settle, 2004; Babbie, 1990; Weisberg, et al. 1996). If the district in which the school resided also had a protocol for district approval, it was followed prior to study implementation as well (see Appendix C).

Once all building-level permissions had been secured, a schedule to administer the questionnaires was agreed upon by the schools' principal and the investigator. Confidentiality of respondents was ensured and described in the cover letter. The decision to provide confidentiality rather than anonymity was made so that non-responders could be contacted should the need arise. At the pre-arranged date and time the investigator or a designated representative administered and collected the questionnaires and provided a secure placement for them. The primary purpose for the investigator or a designated representative to administer and collect the questionnaires, typically during a faculty meeting, was to increase response rates. The threat of nonresponse bias is considered to be a serious problem that can produce systematic error in the findings within survey research (Alreck & Settle, 2004; Czaja & Blair, 2005).

Prior to the distribution of the questionnaire, certified staff and principals were provided individual permission letters outlining the purpose of the study and their right to agree or not agree to participate (see Appendices D and E). Those agreeing to participate signed and turned in the letters to the investigator or designated collector. Prior to administration of the questionnaire, one of two procedures were followed. In buildings where the investigator administered the questionnaire, the principal elected whether or

not to be present during the introduction of the activity and its purpose. When the investigator's introduction was complete, participants were apprised of the location of a box where they were to place the sealed questionnaires when completed and given an opportunity to ask any questions. The investigator and principal then exited the location. The investigator remained in close proximity to answer additional questions if requested. The principal had no more contact with the staff during the completion of the questionnaire.

School staff members were given a copy of the Principal Leadership Skill Questionnaire by a fellow certified staff member that was pre-coded with a number representing the school and participant and an unmarked envelope in which to place the completed questionnaire. When finished, respondents placed them in the box and exited the meeting.

In buildings where either the certified staff or principal elected to complete the questionnaires individually, the principal introduced the purpose of the activity to the staff either in a staff meeting time or via letters supplied by the investigator (Appendix F), along with a blank permission letter. If the staff member elected to complete the questionnaire, a designated staff member other than the principal or assistant principal collected them and returned them to the building secretary and they were placed in an envelope supplied by the investigator. Then, either a designated staff member or the building secretary gave them a copy of the questionnaire and an unmarked envelope. When completed, the staff members returned them to the designated person and they were placed in a lidded box to ensure confidentiality. The investigator collected all

questionnaires and the signed permission forms from the building secretary on a pre-arranged date agreed to by the building principal.

In schools where more than one principal was employed, the investigator had previously obtained information from the head principal regarding which one had been assigned primary responsibility for the implementation of SW-PBS in the school setting and participants were instructed either by the investigator or designated staff member to base their responses on the assessment of that individual.

Data entry and reliability procedures. Once the questionnaires were returned, a master list was marked and the percentage of staff available to participate was computed and recorded (Babbie, 1990). The master list was not made available to anyone beyond the principal investigator. The questionnaires were then placed in a locked file cabinet housed in the Special Education Department at the University of Missouri-Columbia.

Data from the questionnaires were entered into a previously constructed data-base. The surveys were pre-coded according to identity of the school, and whether it was an administrator or teacher set of data. The data for SW-PBS schools was entered and coded as schools 1-15. The data for the control group schools was entered and coded as schools 16-30. For each school, the principal questionnaire was coded as respondent #1. If the data from a school also included the responses of an assistant principal, that data was coded as respondent #2 for that building.

Once all data were entered by a data recorder for the 725 returned questionnaires (695 certified staff and 30 principals), the investigator performed a hand check of each one to answer marked questions for which the data recorder had requested clarity. The

data recorder then entered the remaining data. Next, the investigator performed a second reliability check whereby a random sample of between 33% and 40% of the items on each questionnaire, for an average of 37% overall, were compared to the original questionnaire for accuracy of entry. The reliability check yielded 11 items in disagreement, or a reliability agreement rate of 99%. The inter-rater agreement was calculated as the number of agreements divided by the number of agreements plus number of disagreements multiplied by 100 (Kazdin, 1982). The investigator corrected these items in the data base before data analysis began.

Phase 3: Collection and Analysis of Demographic Data

In Phase 3, items were compared in relation to the demographic data collected through DESE as previously identified (numbers of students enrolled and certified staff employed, free/reduced lunch percentage, ethnicity, factors related to AYP, factors related to special education percentages, attendance rates, and geographic location). These demographic variables were used as a part of the analysis of the research questions to determine if any significant differences existed among subgroups within the sample (Rea & Parker, 2005).

A second set of demographic data related to certified staff and principals that was not readily available from DESE was collected as a part of the questionnaire and included: (a) gender, (b) ethnicity, (c) employment assignment, (d) areas of educational certification, and (e) years of full-time experience as a general educator, special educator, and/or principal. The primary purpose for analyzing the data in relation to the second set of demographic factors was to ascertain if any were potential classification variables.

Classification variables are weaker in the inferences that can be derived from them given that differences between groups can be identified, but there is no evidence to identify why the differences exist. The differences, however, are worth noting to (a) identify potential future lines of research, and (b) account for any variables that might influence, confound, or distort the apparent effects of the independent variable (Babbie, 1990; Keppel & Wickens, 2004).

Phase 4: Case Studies of Identified Schools

Given that this study is the first to directly investigate the relationship of the role of principal leadership skills and SW-PBS, the collection of additional measures from schools implementing school-wide PBS was warranted. A case study format was implemented in two stages with three elementary schools found to have the highest ratings associated with principal demonstration of effectiveness of leadership skills in SW-PBS schools. These two steps included: (1) completing focus interviews with SW-PBS team members, and (2) collecting and comparing results of the School-wide Evaluation Tool 2.0 (SET) obtained by the three schools during the 2005-2006 school year and rates of office discipline referrals from 2002-2006. The SET is specifically constructed for gathering data in SW-PBS schools related to the primary (universal) level of implementation. As previously described, the SET research instrument has been assessed and deemed to be reliable and valid (Horner et al. 2004).

The principals of the schools were contacted and all agreed to allow their SW-PBS team members to participate in the case study phase. They were asked to select a date and time convenient to the team members to meet for no longer than 45 minutes, and

to inform members that participation was voluntary. Approximately one week before the scheduled interviews, the investigator sent an email to the principals confirming the appointments, reminding them that they were asked not to attend, and including an attachment of the Principal Leadership Skill Questionnaire to forward to team members as a reminder of what they had previously filled out.

Stage 1: Focus interview format. The focus interview format included conducting the interviews with a set of participants identified through purposeful sampling. In this study the sample was SW-PBS team members because they theoretically have had the most training in PBS principles and practices, the most consistent access to evaluating the principal's relationship with implementing SW-PBS, and the most active roles in the implementation of SW-PBS among staff members in their building.

The investigator developed a set of 6 open-ended predetermined questions that were recorded on a form with space for reporting participant responses (Appendix H). The investigator began each meeting by informing potential participants of the voluntary and confidential nature of the interview. Team members were also apprised of the general content of the questions. They were asked to read the Consent to Participate form (Appendix D) and to sign it if they were willing to participate. All members at the three schools chose to sign the consent forms. The interviews were audio taped and a second observer was present to take notes to increase the likelihood of reliably reporting the results of the responses (Creswell, 1998). In each of the schools, all team members agreed to the presence of a second observer prior to that person's entrance into the interview site. A SW-PBS consultant was the second observer in two of the buildings.

An assistant principal served as the second observer in the third school due to the unexpected inability of the SW-PBS consultant to attend. The assistant principal was suggested as a replacement by the team members because she had been a member of their team for several years and was knowledgeable about the SW-PBS process in general and its implementation in their school in particular. The investigator also took notes during the interview in case the audio recorder malfunctioned.

The interview format (appendix G) was followed in order each time. The questions were purposefully constructed to elicit themes related to the influence of implementing SW-PBS on job satisfaction, student behavior and principal leadership. At the end of the interviews, the second recorders handed their notes to the investigator who briefly reviewed them to ascertain if clarification was needed on any information. The investigator reviewed and made notes from the audio recordings and then compared these notes to those taken at the interviews. From these sources a list of primary categories of responses and major themes was determined. Next the audio recorder was given to an independent reviewer who is a doctoral candidate in special education. The second reviewer followed the same protocol of taking notes while listening to the audio recordings, condensing these into categories, and identifying major themes. The investigator then compared the first findings to those of the second reviewer. The investigator and second reviewer were in agreement regarding the primary categories of responses and major themes at each of the three schools.

Stage 2: SET results and discipline data. In Stage 2, the SET 2.0 results for the 2005-2006 school year were reviewed by the primary investigator to compare the

assessed level of implementation of SW-PBS across the three schools. The SET involves approximately 1-2 hours of time spent in observing for designated archival items; randomly selecting teachers, students, and staff members to answer prescribed questions; and conducting a separate interview with at least one building administrator. The responses and ratings of archival items are recorded on a protocol form, are given number values, and then computed to percentages. Inter-rater reliability is also computed and recorded (Horner et al. 2004). The SET is viewed as a "snapshot" of a school's overall implementation of SW-PBS.

A review of the data related to office discipline referrals (ODR) rates over a multi-year period was conducted for two reasons: (1) more in-depth records related to accurate counts of all discipline referrals were available in these schools, and (2) potential patterns in numbers of referrals could help to elucidate how SW-PBS is impacting the overall school environment. These two stages of information gathering during the case study phase were descriptive in nature and designed to further expand the previous findings. ODR data in and of itself is not identified as an indicator of behavior change, but a metric for guiding decision-making related to interventions (Sprague, et al., 2001). Multi-year analysis of overall rates of ODR may assist schools in assessing the overall usefulness of interventions, systems, and practices utilized if viewed as an indicator rather than a predictor (Irvin et al. 2004; Irvin et al. 2006; Luiselli et al. 2002; Nelson et al. 2002).

To analyze the data from the case studies, the following steps were taken: (1) the interview responses were recorded through note-taking by the investigator, and cross-

checked with those of the second recorder and/or audio recording, (2) the interview data was read and categorized according to potentially emerging clusters of responses, themes and agreements across participants by the investigator, (3) a second reviewer read and categorized the responses independently of the principal investigator, (4) the principal investigator and second reviewer reviewed the results together to determine areas of agreement and disagreement, (5) any areas of disagreement were categorized by a third reviewer, (6) the results of the responses as agreed to among and between reviewers were sorted once again according to themes, and (7) the responses and themes were compared to the results from Research Questions 1-4 to determine if any new information of significance had been identified, or if it added either agreement or disagreement to the mean rating of satisfaction with the specific administrator skills included in the survey (Creswell, 1998; Gay & Airasian, 2003).

The SET results and ODR findings were recorded and compared to the questionnaire outcomes and interview results. This triangulation of qualitative and quantitative results was intended to give a more complete picture of the most salient variables associated with principal leadership skills and implementation of SW-PBS (Creswell, 2003). Including case study results from schools reporting highest levels of principal leadership skills through SW-PBS team interviews, and the review of SET and ODR records allowed for a potentially more complete understanding of the process.

CHAPTER III

RESULTS

Data Analysis Overview

In this chapter treatment of the data, descriptive statistics and frequencies where appropriate, transformation of variables, demographic characteristics of the schools and respondents, and hypothesis tests results of this study are presented in relation to the phases of the study. As previously stated, the study was conducted in four phases: (1) development of the questionnaire, (2) distribution of the questionnaire and analysis of results, (3) collection and analysis of demographic data, and (4) case studies at the three SW-PBS schools demonstrating the highest scores related to principal effectiveness. The first part of this chapter (related to Phase 1) is subdivided into the following sections: (1) data analysis of the questionnaire instrument and (2) results related to the content validity, internal reliability and construct validity of the instrument.

In the second part of this chapter, the results of the questionnaire are reported in relation to the five research questions (Phase 2). In the third part of this chapter, the demographic characteristics related to the schools and respondents included in the sample are reported (Phase 3) in relation to the questionnaire results. In the fourth part, the case study results and how the results align with the questionnaire are presented (Phase 4). For all statistical tests except ANOVA F ratio (which computes F ratio significance at .001 level), the level of significance was set at alpha = .05.

Phase 1: Development of the Questionnaire

Questionnaire Purposes and Sections

The questionnaire instrument developed for this study, the Principal Leadership Skill Questionnaire (Appendix A), was designed to assess the perceptions of certified staff and principals as to the importance and evidence of a set of 31 leadership skills (survey section I). Second, the questionnaire was designed to determine what, if any, impact training in SW-PBS had on the job satisfaction of the certified staff and principals (survey section II). Third, a second set of demographic questions related to participants' gender, highest academic degree earned, current job assignment, ethnicity, areas of educational certification, and years of educational experience was included to ascertain if there were any areas of significant difference in respondents between those employed in SW-PBS or non PBS schools (survey section III). Fourth, a set of questions related to respondents' participation in SW-PBS training history and their assessment of SW-PBS was included to more fully describe potential variables of interest (survey section IV).

Content validity of the questionnaire. As previously stated in Chapter 2, the content validity of the questionnaire was addressed through a series of steps. First, the 31 skill items included in the questionnaire were cross-referenced to those reported through the literature as being associated with transformational, managerial, and behavior management leadership. Second, the selected skills were evaluated by two recognized researchers, one with SW-PBS expertise and one with principal leadership expertise. The experts confirmed they believed the 31 items and analysis in relation to importance and evidence of effectiveness to be appropriate. No additional items were recommended for

inclusion in Section I of the questionnaire. The 31 items were grouped according to their alignment with transformational (items 1-11), managerial (items 12-19), and behavior management (items 20-31) principal leadership skills (Table 1). The content of Sections II and III were approved as written.

The addition of one item, "I am more satisfied with my principal's job performance since my school has been using SW-PBS" was recommended for Section IV. All recommendations were incorporated into the final questionnaire instrument.

Data Analysis of the Questionnaire Instrument

Internal reliability of the questionnaire instrument. The results of the questionnaire were analyzed according to mean ratings and differences among groups. Data analysis of the descriptive statistics by item for frequency of response, mean, standard deviation, and standard error were employed. Any statistical procedures for this phase were conducted using the Statistical Package for the Social Sciences (SPSS) version 13 (SPSS Inc., 2004). Items that fit cluster analysis by groups of respondents (SW-PBS and non-PBS, and certified staff and principals) and by the six subscales of: (1) Transformational importance, coded as A1, (2) managerial importance, coded as A2, (3) behavior management importance, coded as A3, (4) transformational exhibits skill, coded as B1, (5) managerial exhibits skill, coded as B2, and (6) behavior management exhibits skill, coded as B3, were also analyzed within those clusters for the same descriptive statistics (Creswell, 2003; Gay & Airasian, 2003).

The internal reliability of the instrument was first analyzed in relation to the descriptive statistics related to the responses of all participants. In all, 695 certified staff

and 30 principals participated in the study. The number of respondents per item varies according to those who answered each item. The lowest percentage rate of response for any individual item was 97.5%. Therefore, an a priori decision was made to preserve all cases and to calculate the average of the available responses for each respondent, and to use that averaged response score to replace any missing items of that individual for each scale (Tabachnick & Fidell, 2001). Table B.i (Appendix H) reports the descriptive statistics results related to status by Position and PBS code for all items. These results provided the basis from which to analyze individual items and by groups of items.

Table 2 reports the descriptive statistics results related to the perceptions of all certified staff and principals of the importance (A values) of each of the 31 skills. Table 2 provided the most concise summation of the descriptive results for the A items, and was utilized to assess overall values of means, skewness and kurtosis.

The mean average per item ranged from 4.42-4.815, indicating assessment as to the importance of all leadership skills included to be closest to the descriptor "strongly agree." The lowest response rate on an individual item was 97.5%. The skew range of -1.306 to -3.835 corresponds to the overall high ratings of the skills. The kurtosis range of 2.416 to 20.34 relates to the overall high frequency of the proximity of ratings of the skills.

Table 2

Descriptive Statistics, All Respondents, Importance (A) Values

				Skew.		Kurt.	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
01a Leads establishing school vision.	719	4.715	0.552	-2.656	0.091	11.257	0.182
02a Leads establishing goals to implement vision.	718	4.660	0.585	-2.239	0.091	8.130	0.182
Item 03a Encourages staff input/participation to prioritize goals.	719	4.661	0.589	-2.242	0.091	7.956	0.182
Item 04a Works toward staff consensus on school-wide issues/goals.	718	4.565	0.671	-1.896	0.091	5.199	0.182
Item 05a Models/uses problem-solving	716	4.527	0.659	-1.598	0.091	3.988	0.182
Item 06a Uses data to help staff prioritize goals.	715	4.436	0.706	-1.306	0.091	2.416	0.183
Item 07a Maintains high perform. expect. all staff.	717	4.815	0.502	-3.835	0.091	20.304	0.182

Table 2 (continued)

Descriptive Statistics, All Respondents, Importance (A) Values

				Skew.		Kurt.	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 08a Encourages staff to self-evaluate.	716	4.511	0.672	-1.538	0.091	3.538	0.182
Item 09a Provides prof. dev. activities to support goals.	707	4.604	0.651	-2.043	0.092	5.858	0.184
Item 10a Actively models skills that support school-wide goals.	714	4.602	0.632	-1.875	0.091	5.001	0.183
Item 11a Establishes leadership teams to guide implement. of goals.	714	4.549	0.669	-1.803	0.091	4.899	0.183
Item 12a Provides and enforces clear school-wide systems.	711	4.653	0.632	-2.153	0.092	5.915	0.183
Item 13a Provides and enforces clear school-wide practices.	711	4.681	0.599	-2.343	0.092	7.567	0.183

Table 2 (continued)

Descriptive Statistics, All Respondents, Importance (A) Values

				Skew.		Kurt.	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 14a Monitors modifies systems and practices as needed.	714	4.601	0.628	-1.833	0.091	4.847	0.183
Item 15a Keeps staff up-to-date on mods. to systems/practices.	713	4.670	0.592	-2.231	0.092	7.210	0.183
Item 16a Anticipates problems and effectively responds to them.	713	4.647	0.624	-2.293	0.092	7.745	0.183
Item 17a Assures school compliance with government regulations.	714	4.758	0.572	-3.156	0.091	13.345	0.183
Item 18a Promotes staff cohesion and cooperation.	712	4.768	0.552	-3.263	0.092	14.416	0.183
Item 19a Provides staff materials/resources/plan times.	713	4.784	0.509	-3.166	0.092	14.493	0.183

Table 2 (continued)

Descriptive Statistics, All Respondents, Importance (A) Values

				Skew.		Kurt.	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 20a Exposes staff to research/rationale for beh. mgmt..	713	4.422	0.729	-1.323	0.092	2.395	0.183
Item 21a Includes staff in decision-making about beh. mgmt. issues.	713	4.603	0.667	-2.105	0.092	6.067	0.183
Item 22a Established leadership team.	711	4.546	0.755	-2.089	0.092	5.318	0.183
Item 23a Publicly supports the leadership team’s efforts.	713	4.607	0.719	-2.256	0.092	6.155	0.183
Item 24a Is an active participant on the leadership team.	712	4.636	0.718	-2.575	0.092	8.058	0.183
Item 25a Support leadership team to form beh. mgmt. action plan.	708	4.595	0.696	-2.056	0.092	5.252	0.183

Table 2 (continued)

Descriptive Statistics, All Respondents, Importance (A) Values

				Skew.		Kurt.	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 26a Provides resources to implement beh. mgmt. plan.	709	4.540	0.715	-1.896	0.092	4.745	0.183
Item 27a Supports recognizes who implement beh. mgmt. plan.	712	4.497	0.739	-1.764	0.092	4.131	0.183
Item 28a Supports recognizes students improved skills.	712	4.698	0.621	-2.694	0.092	9.616	0.183
Item 29a Informs all about beh. mgmt.	715	4.503	0.723	-1.654	0.091	3.496	0.183
Item 30a Maintains beh. mgmt.systems/practices.	712	4.643	0.631	-2.199	0.092	6.685	0.183
Item 31a Ensures staff know/follow beh. mgmt. practices.	713	4.679	0.635	-2.539	0.092	8.470	0.183

The descriptive statistics results of the perceptions of all certified staff and principals related to the effectiveness (B values) of principals in utilizing the 31 skills is presented in Table 3. The mean average per item ranged from 3.73 - 4.46, indicating an assessment as to the importance of all leadership skills included to be across two descriptors, “agree” and “strongly agree.” The lowest response rate on an individual item was 97.8%. The skew range of -.653 to -1.613 corresponds to the medium to high ratings of the skills, although these results are not as skewed as those related to the A items, which is in keeping with the wider range of score responses. The kurtosis range of -0.231 to 2.674 also relates to the medium to high ratings of the skills. Given that the number for a normal distribution is 0, the kurtosis overall also indicates the high frequency with which participants selected similar ratings for these items.

While these results are lower than those for the importance items in Table 2, overall they are still relatively high ratings. The results also indicate a consistency across items given the less than 1 point differential between the highest and lowest ratings per item.

Table 3

Descriptive Statistics, All Respondents, Effectiveness (B) values

				Skewness		Kurtosis	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 01b Leads establish school vision.	722	4.179	0.889	-1.070	0.091	1.028	0.182
Item 02b Leads establish goals/implement vision.	719	4.125	0.907	-0.957	0.091	0.669	0.182
Item 03b Encourages staff input/participation to prioritize goals.	718	4.114	0.967	-1.176	0.091	1.256	0.182
Item 04b Works toward staff consensus on school-wide issues/goals.	722	3.916	1.056	-0.852	0.091	0.204	0.182
Item 05b Models/uses problem-solving to help staff reach consensus.	719	3.839	1.046	-0.743	0.091	0.115	0.182
Item 06b Uses data to help staff prioritize goals.	716	4.052	0.977	-0.969	0.091	0.683	0.182
Item 07b Maintains high performance expectations	720	4.224	0.969	-1.334	0.091	1.495	0.182

for all staff.

Table 3 (continued)

Descriptive Statistics, All Respondents, Effectiveness (B) values

				Skewness		Kurtosis	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 08b Encourages supports staff to self-evaluate goals progress.	721	4.028	0.980	-0.961	0.091	0.658	0.182
Item 09b Provides prof. dev. to support goals.	709	4.155	0.927	-1.058	0.092	0.861	0.183
Item 10b Models skills to support school-wide goals.	714	4.001	0.966	-0.846	0.091	0.376	0.183
Item 11b Establishes leadership teams to guide implement. of goals.	714	4.171	0.951	-1.082	0.091	0.693	0.183
Item 12b Provides and enforces clear systems.	712	3.989	1.024	-0.899	0.092	0.274	0.183
Item 13b Provides enforces clear practices.	713	3.978	1.005	-0.828	0.092	0.121	0.183
Item 14b Monitors	712	3.902	1.004	-0.746	0.092	0.138	0.183

modifies systems and

practices as needed.

Table 3 (continued)

Descriptive Statistics, All Respondents, Effectiveness (B) values

				Skewness		Kurtosis	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 15b Keeps staff up-to-date on mods. to systems/practices.	715	4.014	1.038	-0.954	0.091	0.350	0.183
Item 16b Anticipates problems and effectively responds to them.	709	3.874	1.084	-0.743	0.092	-0.131	0.183
Item 17b Assures comp. with gov. regulations.	712	4.461	0.802	-1.613	0.092	2.674	0.183
Item 18b Promotes staff cohesion and cooperation.	713	3.957	1.133	-0.996	0.092	0.192	0.183
Item 19b Provides staff with materials resources/plan times.	713	4.240	0.906	-1.174	0.092	1.044	0.183
Item 20b Exposes staff to research for beh. mgmt..	715	3.906	1.048	-0.763	0.091	0.003	0.183

Item 21b Includes staff in decision-making about beh. mgmt. issues.	716	3.867	1.111	-0.823	0.091	-0.032	0.182

Table 3 (continued)

Descriptive Statistics, All Respondents, Effectiveness (B) values

				Skewness		Kurtosis	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 22b Established leadership team to guide beh. mgmt. system.	712	4.038	1.135	-1.058	0.092	0.306	0.183
Item 23b Publicly supports leadership team's efforts.	714	4.069	1.134	-1.187	0.091	0.664	0.183
Item 24b Active on the leadership team.	713	4.079	1.152	-1.208	0.092	0.645	0.183
Item 25b Support leadership team beh. mgmt. action plan.	711	4.004	1.079	-1.067	0.092	0.621	0.183
Item 26b Provides resources to implement beh. mgmt. plan.	712	3.876	1.107	-0.840	0.092	0.044	0.183

Item 27b Supports/recognizes staff who implement beh. mgmt. plan.	710	3.807	1.144	-0.767	0.092	-0.177	0.183

Table 3 (continued)

Descriptive Statistics, All Respondents, Effectiveness (B) values

				Skewness		Kurtosis	
	N	Mean	SD	Skew.	Std. Error	Kurt.	Std. Error
Item 28b Supports/recognizes students improved beh./social skills.	719	4.031	1.038	-0.968	0.091	0.373	0.182
Item 29b Informs stakeholders about meeting beh. mgmt. goals.	718	3.731	1.117	-0.653	0.091	-0.231	0.182
Item 30b Maintains beh. mgmt. standards/systems/practices.	716	3.873	1.113	-0.896	0.091	0.169	0.182
Item 31b Ensures all staff know/follow beh. mgmt. practices.	716	3.863	1.089	-0.872	0.091	0.198	0.182

Determination of internal reliability by item analysis. The information provided in Tables 2 and 3 established a basis from which item-by-item analysis could be computed, to determine which, if any, questionnaire items should be eliminated. Items for each scale and respondent were averaged (Keppel & Wickens, 2004). Reliability, in the form of scale cohesiveness, is an important measure of scale quality. Cronbach's Alpha is a measure of the internal consistency within the subscales. Tables B.ii through B.vii (Appendix I) show the results of the analysis of the internal consistency and item characteristics of the six subscales. Some item descriptions were abbreviated to improve the appearance of the tables. The results from the tables demonstrate the appropriateness of including all 31 items for analysis in relation to assessment of importance (A scales) and effectiveness (B scales). The Cronbach's Alpha scores within each subscale ranged from .912 to .959, indicating a high degree of interrelatedness of items within each subscale. This suggests the items within each subscale are measuring similar or complementary skills. The highest Alphas for importance and effectiveness were associated with behavior management. The Alphas for the subscales are: (A1) Transformational Importance = 0.920, (A2) Managerial Importance = 0.912, (A3) Behavior Management Importance = 0.945, (B1) Transformational Effectiveness = 0.954, (B2) Managerial Effectiveness = 0.935, and (B3) Behavior Management Effectiveness = 0.959.

Construct validity of questionnaire. Guidelines for survey research were reviewed through a variety of empirically validated survey instruments related to principal leadership skills (see Chapter 2). Of those instruments, ones employing a Likert

Scale format were reviewed for overall format construction and design of response statements. The proposed questionnaire was then reviewed by an expert in SW-PBS, an expert in principal leadership, and two survey development experts. The recommendation for Section I was to incorporate one set of descriptors for assessment of the importance of each skill, and a different set of descriptors for the assessment of evidence of each skill. This recommendation was made to: (a) more accurately reflect the purpose of each section, and (b) make clear to respondents what they were being asked to assess. The recommendation for Sections II was to decrease the number of possible respondent choices from 5 to 4 for both items by eliminating "neutral/not sure." The items in Section III and IV were approved as written.

Determination of construct validity. The construct validity of the questionnaire in relation to the six subscales was analyzed statistically by examining the correlation among them through Pearson's Correlation Coefficient. One concern with instruments having multiple scales is the potential for the scales to be so highly correlated with each other that they are collinear. Tables 4 and 5 below summarize the scale inter-correlations for the six scales. The inter-scale correlations for the 3 subscales related to importance ranged from .726 to .819, indicating a "very strong positive association" (Rea & Parker, 2005, p. 194) among them. The inter-scale correlations for the 3 subscales related to effectiveness ranged from .805 to .893, also indicating a "very strong positive association" (Rea & Parker, 2005, p. 194). Thus, the subscales related to importance and the subscales related to effectiveness are each constructed to measure similar variables.

The 3 subscales related to importance are not strongly associated with the 3 subscales related to effectiveness (range of .177 to .323). This indicates the two sets of subscales are measuring different variables appropriately. Given the strong positive association among the three subscales within each of the two sets and the substantially weaker association between the two sets of subscales, the construct validity of the 31 items and decision to subdivide them into six subscales appears to be upheld.

Table 4

Inter-scale Correlations for Importance Items (A1 to A3) to All Items

Scale	Statistic	A1 Transformational Scale (Imp.)	A2 Managerial Scale (Imp.)	A3 Beh. Man. Scale (Imp.)
A1 (Imp.) Transformational Scale	r	1	0.819	0.726
	N	721	716	720
A2 (Imp.) Managerial Scale	r	0.819	1	0.803
	N	716	716	716
A3 (Imp.) Beh. Man. Scale	r	0.726	0.803	1
	N	720	716	720
B1 (Eff.) Transform. Scale	r	0.321	0.228	0.197
	N	719	714	718
B2 (Eff.) Managerial scale	r	0.254	0.216	0.177
	N	714	714	714

Table 5

Inter-scale Correlations for Effectiveness Items (B1 to B3) to All Items

Scale	Statistic	B1 Transformational Scale (Eff.)	B2 Managerial Scale (Eff.)	B3 Behavior Management Scale (Eff.)
A1 (Imp.)	r	0.321	0.254	0.272
Transformational Scale	N	719	714	718
A2 (Imp.)	r	0.228	0.216	0.227
Managerial Scale	N	714	714	714
A3 (Imp.)	r	0.197	0.177	0.323
Behavior Management Scale	N	718	714	718
B1 (Eff.)	r	1	0.893	0.805
Transformational Scale	N	723	718	722
B2 (Eff.)	r	0.893	1	0.817
Managerial scale	N	718	718	718
B3 (Eff.)	r	0.805	0.817	1
Behavior Management Scale	N	722	718	722

Phase 2: Questionnaire Distribution and Analysis

Questionnaire Distribution and Response Rate

Questionnaires were distributed in accordance to the process outlined in Chapter 2. The response rate was the number of eligible sample members who completed the survey divided by the total number of eligible sample members (Babbie, 1990; Rea & Parker, 2005). In SW-PBS schools, 75% of the buildings elected to complete the questionnaires during staff meetings. In non-PBS schools, 33% elected to complete the questionnaires during staff meetings.

The response rates at SW-PBS schools ranged from 64% - 100%, for an average of 93.6%. The response rates at non-PBS schools ranged from 27% - 100%, for an average of 75.9%. In general, a response rate of 50% is considered adequate, 60% is considered good, and a response rate of 70% is considered very good (Babbie, 1990). The percentage rates are reported as follows:

Table 6

Percentage Rates of Respondents by School

SW-PBS Buildings Questionnaire Number	Completed During *	Participation %	Non SW-PBS Buildings Questionnaire Number	Completed During *	Participation %
01	1	78	16	2	77
02	1	96	17	1	96
03	2	64	18	2	97
04	1	85	19	2	71
05	1	100	20	2	90

Table 6 Continued

Percentage Rates of Respondents by School

06	1	100	21	2	27
07	1	100	22	2	29
08	1	100	23	1	100
09	1	100	24	1	100
10	1	100	25	1	100
11	1	98	26	2	61
12	2	91	27	1	70
13	1	97	28	2	83
14	2	100	29	2	42
15	2	95	30	2	95
Average % Participation for Building		93.6	Average % Participation for Building		75.9

** 1 = completed during staff meeting time, 2 = completed on own & returned to secretary*

Scale Descriptive Statistics Considerations

The method of data analysis chosen for research questions one and two uses two-way analysis of variance (two-way ANOVA), which is a subset of the general linear model (GLM). This method was selected so that simultaneous analysis of the effects of the dichotomous variables: (1) SW-PBS status (PBS/non-PBS) and (2) Position (Principal/Certified Staff) as the independent variables, and the six subscales (A1, A2, A3, B1, B2, and B3) as the dependent variables, could be studied in relation to the two independent variables separately and together.

Two-way ANOVA is based on a set of assumptions: (1) cell sizes are adequate and relatively well-matched in size (Keppel & Wickens, 2004), (2) between-cell variances are reasonably equal (Tabachnick & Fidell, 2001), and (3) observations and responses are normally distributed (Tabachnick & Fidell, 2001). A commonly applied metric to cell sizes in ANOVA is that each cell should have at least 10 observations and the largest N should be no more than 10 times the smallest (SPSS, Inc., 2004). Unequal cell size proportions can be a factor in rejecting the null hypothesis when this is not appropriate (Ferguson & Takane, 1989; Tabachnick & Fidell, 2001). Since there were only 30 schools in the study, and therefore only 30 principals (equally divided between PBS and non-PBS schools) and many certified staff respondents in each school, there was a large difference in cell sizes between the Principal cells and the Certified Staff cells. These cell size differences were greater than the 10:1 differential recommended for ANOVA techniques (SPSS, Inc., 2004). To address this, all principals were retained for subsequent two-way ANOVA analyses, and a random sample of a smaller number of certified staff was selected. To select a random sample of certified staff, each observation was assigned a random number between one and five from the uniform distribution. Then, all observations with a random number of two or three were chosen to remain in the analysis dataset, which will be referred to as the reduced dataset (Shannon & Davenport, 2000). After sampling from the certified staff respondents, the cell size recommendations were met; with no cell differentials greater than 10:1.

Levene's test for homogeneity of error (within-cell) variances tests the null hypothesis that error variances are equal across cells, and in the case of two-way

ANOVA, for the interaction term as well. Levene's test was performed for each of the six prospective two-way ANOVA's and the results are shown in Table 7. The cell error variances were significantly different for the three proposed analyses using scales B1 to B3 (the effectiveness scales), which violates the ANOVA assumption of homogeneity of variances.

Table 7

Levene's Test for Homogeneity of Error Variances (a)

Dependent variable (scale)	F	df1	df2	Sig.
A1 Transformational Scale (Importance)	1.28280	3	196	0.28148
A2 Managerial Scale (Importance)	0.25425	3	196	0.85824
A3 Behavior Management Scale (Importance)	1.24162	3	196	0.29582
B1 Transformational Scale (Effectiveness)	2.68153	3	197	* 0.04803
B2 Managerial scale (Effectiveness)	2.77273	3	197	* 0.04267
B3 Behavior Management Scale (Effectiveness)	3.27028	3	197	* 0.02231

The design for each test was: Intercept + PBS Status + Position + PBS Status x Position
* Cell variances significantly different, alpha=0.05.

Although ANOVA is relatively robust against the assumption that observations be normally distributed, very large values for skewness or kurtosis may invalidate its use (Ferguson & Takane, 1989). Relatively large values for skewness and kurtosis for the three importance scales across all observations made it likely that within-cell and main effects skewness and kurtosis values might also be large, resulting in a J-shaped distribution (Ferguson & Takane, 1989). Because within-cell and main effects normality are assumptions of ANOVA (e.g., Principal and PBS cell, Cert. Staff and Non-PBS cell,

etc.), the skewness and kurtosis analyses were reproduced by cell for main effects and for individual cells (Appendix K, Tables B.viii and B.ix).

Data transformation. The data from Levene's Test (Table 7) and Tables B.viii and B.ix showed there were violations of the homogeneity of variance, main effects and within-cell assumptions for normality of distributions. One method of compensating for strong deviations from normality is to transform the data, which does not alter its statistical properties (Ferguson & Takane, 1989; Keppel & Wickens, 2004; Tabachnick & Fidell, 2001). The transformations chosen for the data were to reflect (reverse the sign of the skew from negative to positive) and then create the inverse of the scale scores by dividing each score into 1. When the scales demonstrate similar properties and the overall distribution pattern is significantly different from a normal distribution, this is a recommended transformation (Keppel & Wickens, 2004; Tabachnick & Fidell, 2001). The resulting transformation should provide a more uniform distribution and reduce the levels of skewness and kurtosis. The scale scores resulting from the transformation were renamed by adding "(RI)" to denote their subsequent use in this study rather than the original scale scores.

Data from Tables B.x through B.xii (Appendix J) show the resulting statistics for overall, main effects and within-cells normality after transformation. No large values for kurtosis or skewness remain in the overall data for the six subscales after transformation. Thus, the assumptions for normality were met using the transformed data. Table 7 showed there were violations of the ANOVA assumption of homogeneity of variance for

scales B1 – B3. Table B.xii (Appendix J) shows that following transformation no violations of the assumption of homogeneity of variance remained for scales B1 – B3.

Summary of Descriptive Statistics and Data Transformation

The initial dataset had several characteristics that violated the assumptions for the proposed two-way ANOVA analysis: (1) for some scales, there was a greater than 10:1 cell size ratio (assumption of relatively equal cell sizes); (2) Levene's test for homogeneity of variances showed that there were statistically significant differences in between-cell variances; and (3) scale skewness and kurtosis values, both across-cells and within-cells, showed that some cells differed dramatically from normality in their distributions (assumption of normality). In order to perform the two-way ANOVA tests required to answer research questions 1 and 2, these violations were addressed.

The cell size differentials were addressed by randomly sampling a smaller set of observations from the larger (certified staff) group of observations, thereby reducing the cell-size differentials to an acceptable level of <10:1. To address the normality and homogeneity of variance violations, the data were transformed by reflecting their distributions and then taking the inverse of each scale score. Following the transformation, all overall and within cells normality indicators (i.e., skewness and kurtosis) were at acceptable levels, and Levene's tests indicated acceptable equality of variances. The revised sampling reduced cell differential to acceptable levels and the transformation addressed the remaining violations of ANOVA assumptions. Following the transformations, the two-way ANOVA tests were assessed to be appropriate measures to analyze data associated with research questions 1 and 2.

Analysis of Research Questions 1 and 2

All statistical procedures for this phase were conducted using the Statistical Package for the Social Sciences (SPSS) version 13 (SPSS Inc., 2004). Two-way ANOVA (also referred to as mixed-model ANOVA) is an appropriate analysis to simultaneously test the effects of two dichotomous independent variables on a single, continuous dependent variable, and to test the interaction between the independent variables (Shannon & Davenport, 2001). All data analyzed were derived from the transformed data sets. This model fit the purpose of questions 1 and 2 in that there were two independent variables (position status as a principal or certified staff member, and PBS status as a SW-PBS or non-PBS school) simultaneously being assessed in relation to the dependent variable(s) of the six subscales related to principal leadership skills. It is also appropriate for descriptive studies such as this one.

First, two-way ANOVA was performed for the three Importance (A) subscales associated with Research Question 1 and then was performed for the three Effectiveness (B) subscales associated with Research Question 2. The independent variables for all ANOVA tests were PBS Status (PBS, Non-PBS) and Position (Principal, Cert. Staff). Tables 8 – 10 show the results for two-way ANOVA tests for the importance subscales.

Research question 1: Leadership skills importance ratings. Research Question 1 is stated as: "Is there agreement between principals and certified staff as to the identification of key leadership skills associated with proactive environments in SW-PBS and non-PBS schools?" This question was addressed through three separate analyses corresponding to the three subscales associated with importance (A1, A2, and A3).

There was no statistically significant effect on the mean A1 Transformational Scale (Importance) for PBS Status, or for Position (main effects). The interaction effect was also not significant. The adjusted R squared value of .005 indicates that the main effects and interaction explain approximately 0.5% of the variance in the dependent variable. Table 8 provides a summary of these results.

Table 8

Two-way ANOVA Results for the A1 Transformational Scale (Importance) (Table is split for presentation)

Source	SS (Type III)	df	MS	F	Sig.
Corrected Model	.146(b)	3	0.049	1.310	0.272
Intercept	62.838	1	62.838	1686.663	0.000
PBS_CODE	0.054	1	0.054	1.441	0.231
POSITION_CODE	0.088	1	0.088	2.367	0.126
PBS_CODE * POSITION_CODE	0.005	1	0.005	0.142	0.707
Error	7.302	196	0.037		
Total	126.129	200			
Corrected Total	7.449	199			

Source	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	0.020	3.930	0.346
Intercept	0.896	1686.663	1.000
PBS_CODE	0.007	1.441	0.223
POSITION_CODE	0.012	2.367	0.334
PBS_CODE * POSITION_CODE	0.001	0.142	0.066

(a) Computed using alpha = .05
(b) R Squared = .020 (Adjusted R Squared = .005)

There also was no statistically significant effect on the mean A2 Managerial Scale (Importance) for PBS Status, or for Position (main effects). The interaction effect was not significant. The adjusted R squared value of .003 indicates that the main effects and

interaction explain approximately 0.3% of the variance in the dependent variable. Table 9 provides a summary of these results.

Table 9

Two-way ANOVA Results for the A2 Managerial Scale (Importance) (Table is split for presentation)

Source	SS (Type III)	df	MS	F	Sig.
Corrected Model	.101(b)	3	0.034	0.820	0.484
Intercept	66.511	1	66.511	1615.484	0.000
PBS_CODE	0.063	1	0.063	1.519	0.219
POSITION_CODE	0.002	1	0.002	0.057	0.812
PBS_CODE * POSITION_CODE	0.001	1	0.001	0.036	0.850
Error	8.069	196	0.041		
Total	142.012	200			
Corrected Total	8.171	199			

Source	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	0.012	2.461	0.226
Intercept	0.892	1615.484	1.000
PBS_CODE	0.008	1.519	0.232
POSITION_CODE	0.000	0.057	0.056
PBS_CODE * POSITION_CODE	0.000	0.036	0.054

(a) Computed using alpha = .05

(b) R Squared = .012 (Adjusted R Squared = -.003)

There was a statistically significant effect on the mean A3 Behavior Management Scale (Importance) for PBS Status (main effect), but not for Position (main effect). The interaction effect was also not significant. The adjusted R squared value of .027 indicates

that the main effects and interaction explain approximately 2.7% of the variance in the dependent variable. These results are summarized in Table 10.

Table 10

Two-way ANOVA Results for the A3 Behavior Management Scale (Importance)

Source	SS (Type III)	df	MS	F	Sig.
Corrected Model	.421(b)	3	0.140	2.857	0.038
Intercept	56.849	1	56.849	1157.125	0.000
PBS_CODE	0.299	1	0.299	6.077	0.015
POSITION_CODE	0.011	1	0.011	0.228	0.634
PBS_CODE * POSITION_CODE	0.021	1	0.021	0.432	0.512
Error	9.629	196	0.049		
Total	126.919	200			
Corrected Total	10.050	199			

Source	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	0.042	8.570	0.678
Intercept	0.855	1157.125	1.000
PBS_CODE	0.030	6.077	0.689
POSITION_CODE	0.001	0.228	0.076
PBS_CODE * POSITION_CODE	0.002	0.432	0.100

(a) Computed using alpha = .05, (b) R Squared = .042 (Adjusted R Squared = .027)

Summary of research question 1 data analysis. There were no statistically significant effects associated with the importance subscales of A1 Transformational or A2 Managerial. There was a statistically significant effect associated with the subscale A3 Behavior Management by PBS status. Subscale A3 demonstrated an observed power

of .678 and an adjusted R squared that accounts for approximately 2.7% of the variance in the dependent variable of behavior management importance.

Principals and certified staff members in SW-PBS and non-PBS schools were in agreement as to the importance of transformational and managerial leadership skills. Findings related to behavior management importance indicate agreement across position status but a statistically significant difference related to PBS status, with participants from SW-PBS schools assessing the importance of behavior management skills at higher rates than those in non-PBS schools. The results of the findings associated with the statistically significant difference between participants from SW-PBS and non-PBS schools related to behavior management importance are best viewed with caution given the reported power of the test as .678.

Two-way ANOVA tests for research question 2. Research Question 2 is stated, "Is there agreement between principals' and certified staffs' rating scores of the evidence of principal demonstration of the identified key leadership skills in SW-PBS and non-PBS schools?" Tables 11 - 13 show the results of the two-way ANOVA tests for the effectiveness scales. The data from Table 11 demonstrate there was no statistically significant effect on the mean B1 Transformational Scale (Effectiveness) for PBS Status, or for Position (main effects). The interaction effect was also not significant. The adjusted R squared value of 0.005 indicates that the main effects and interaction explain approximately 0.5% of the variance in the dependent variable. There is in fact a high level of agreement across the main effects.

Table 11

Two-way ANOVA Results for the B1 Transformational Scale (Effectiveness) (Table is split for presentation)

Source	SS (Type III)	df	MS	F	Sig.
Corrected Model	.106(b)	3	0.035	0.636	0.593
Intercept	38.593	1	38.593	692.133	0.000
PBS_CODE	0.027	1	0.027	0.477	0.490
POSITION_CODE	0.030	1	0.030	0.546	0.461
PBS_CODE * POSITION_CODE	0.004	1	0.004	0.063	0.802
Error	10.985	197	0.056		
Total	85.525	201			
Corrected Total	11.091	200			

Source	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	0.010	1.907	0.182
Intercept	0.778	692.133	1.000
PBS_CODE	0.002	0.477	0.106
POSITION_CODE	0.003	0.546	0.114
PBS_CODE * POSITION_CODE	0.000	0.063	0.057

(a) Computed using alpha = .05

(b) R Squared = .010 (Adjusted R Squared = -.005)

Table 12 demonstrates there was no statistically significant effect on the mean B2 Managerial Scale (Effectiveness) for PBS Status, or for Position (main effects). The interaction effect was also not significant. The adjusted R squared value of .000 indicates that the main effects and interaction are very closely aligned and account for none of the variance in the dependent variable.

Table 12

Two-way ANOVA Results for the B2 Managerial Scale (Effectiveness) (Table is split for presentation)

Source	SS (Type III)	df	MS	F	Sig.
Corrected Model	.172(b)	3	0.057	1.002	0.393
Intercept	40.567	1	40.567	707.934	0.000
PBS_CODE	0.011	1	0.011	0.184	0.669
POSITION_CODE	0.119	1	0.119	2.078	0.151
PBS_CODE * POSITION_CODE	0.010	1	0.010	0.175	0.676
Error	11.289	197	0.057		
Total	86.718	201			
Corrected Total	11.461	200			

Source	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	0.015	3.007	0.270
Intercept	0.782	707.934	1.000
PBS_CODE	0.001	0.184	0.071
POSITION_CODE	0.010	2.078	0.300
PBS_CODE * POSITION_CODE	0.001	0.175	0.070

(a) Computed using alpha = .05
(b) R Squared = .015 (Adjusted R Squared = .000)

The data in Table 13 demonstrate there was a statistically significant effect on the mean B3 Behavior Management Scale (Effectiveness) for PBS Status (main effect). There was no statistically significant effect for Position (main effect), or for the interaction. The adjusted R squared value of .040 indicates that the main effects and interaction explain approximately 4.0% of the variance in the dependent variable.

Table 13

Two-way ANOVA Results for the B3 Behavior Management Scale (Effectiveness) (Table is split for presentation)

Source	SS (Type III)	df	MS	F	Sig.
Corrected Model	.623(b)	3	0.208	3.805	0.011
Intercept	34.573	1	34.573	633.197	0.000
PBS_CODE	0.365	1	0.365	6.684	0.010
POSITION_CODE	0.029	1	0.029	0.536	0.465
PBS_CODE * POSITION_CODE	0.003	1	0.003	0.064	0.801
Error	10.756	197	0.055		
Total	79.308	201			
Corrected Total	11.379	200			

Source	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	0.055	11.415	0.811
Intercept	0.763	633.197	1.000
PBS_CODE	0.033	6.684	0.730
POSITION_CODE	0.003	0.536	0.113
PBS_CODE * POSITION_CODE	0.000	0.064	0.057

(a) Computed using alpha = .05
(b) R Squared = .055 (Adjusted R Squared = .040)

Summary of research question 2 data analysis. The findings associated with Research Question 2 indicate that both groups (SW-PBS and non-PBS) and both sets of participants (principals and certified staff) reported similar assessments of principals related to transformational and managerial leadership skill effectiveness. The findings also indicated a statistically significant higher assessment of principal leadership skill

effectiveness associated with behavior management in SW-PBS schools. The statistically significant effect associated with the subscale B3 Behavior Management by SW-PBS status with an observed power of .811 and an adjusted R squared that accounted for approximately 4.0 % of the variance is indicative of a true difference in relation to the assessment of principal effectiveness associated with behavior management in SW-PBS schools.

Analysis of Results for Research Question 3: Job Satisfaction

Research Question 3: "Do certified staff members report higher rates of job satisfaction in SW-PBS schools than certified staff members report in non-PBS schools?" Questionnaire item 2-1, "I am satisfied with my job" was re-coded into two groups with "Strongly Disagree" and "Disagree" grouped as "Less Satisfied", and "Agree" and "Strongly Agree" grouped as "More Satisfied."

With the items dichotomously coded, a z-test of independent proportions was decided a priori to be an appropriate means to statistically analyze Research Question 3. The only cell size requirement for a z-test of independent proportions is that cells should be five or larger. Utilizing the z-test allowed analysis of the original full untransformed dataset. The z-test is also appropriate for skewed distributions (Ferguson & Takane, 1989) and for a one-tail test (Rea & Parker, 2005), which is indicated by the questionnaire item, "I am satisfied with my job." Table 14 shows the N and percentage for job satisfaction by SW-PBS Status, followed by Table 15, which reports the results of the one-tailed z-test. Certified staff in SW-PBS schools had a 5.3% higher rate of reporting job satisfaction than did their non-PBS peers. The z-test P level of .008

indicated there is a statistically significant difference in the proportion of certified staff in SW-PBS schools reporting they are more satisfied with their jobs than those in non-PBS schools.

Table 14

N and Percentages for Job Satisfaction, by PBS Status

	N		Percent	
	PBS	Non-PBS	PBS	Non-PBS
More Satisfied	388	243	93.0456	87.7256
Less Satisfied	29	34	6.9544	12.2744
Total	417	277	100.0000	100.0000

Table 15

Results of Z-test of Independent Proportions of Job Satisfaction, by PBS Status

Proportion PBS	Proportion Non-PBS	Diff. in Proportions	df	z	z Crit. (1-Tailed Test)	P (Sig.)
0.930	0.877	0.053	692	2.389	1.645	0.008

Analysis of Results for Research Question 4: Principal Effectiveness

Research question 4 asked, "Is principal effectiveness identified as a factor related to higher certified staff job satisfaction in SW-PBS or non-PBS schools?" This question was analyzed in relation to questionnaire item 2_2 which states, "My principal's effectiveness and support has increased my job satisfaction." This item was re-coded with "Strongly Disagree" and "Disagree" grouped as "Principal effectiveness did not increase job satisfaction," and "Agree" and "Strongly Agree" coded as "Principal effectiveness did increase job satisfaction." With the item dichotomously coded, a z-test of independent proportions was also used to statistically answer research question 4. There was less than

a 1% difference between the percentage of certified staff respondents in SW-PBS and non-PBS schools. A z-test of independent proportions (1 tailed) confirmed there were no differences between the proportions of SW-PBS or non-PBS certified staff reporting greater job satisfaction associated with principal effectiveness.

Analysis of Results for Research Question 5: Principal Behavior Management and SW-PBS Status

Research question 5 asked: "Are principal behavior management effectiveness and SW-PBS status predictive of job satisfaction?" This question analyzed the relationship between job satisfaction (DV), principal behavior management effectiveness (IV_1) and SW-PBS Status (IV_2). It should be noted that this is a different perspective from research question 4, which addressed overall principal effectiveness, while this question specifically examines principal behavior management effectiveness. The dependent variable, Item 2_1 job satisfaction, has a 4-level Likert-type response set of Strongly Disagree, Disagree, Agree and Strongly Agree. Since it is a Likert-type item, an underlying normal distribution is assumed. The data demonstrated no extreme variations in skewness or kurtosis, indicating there was no extreme deviation from the assumption of normality for the dependent variables in this linear regression. Since linear regression is also susceptible to the influence of outliers an a priori decision was made to remove all cases with standardized residuals having absolute values greater than 2.0 (Keppel & Wickens, 2004).

Principal behavior management effectiveness had a statistically significant positive correlational relationship to job satisfaction. SW-PBS Status, when viewed

simultaneously (t test) with principal behavior management effectiveness, had a statistically significant negative correlational relationship to job satisfaction. At the same time, Beta weights for both variables were positive, indicating each had a positive correlational effect on job satisfaction independently. In summary, while both IV's had a positive effect independently, principal behavior management was the stronger predictor of certified job satisfaction. The adjusted R squared (coefficient of determination) for this model is 0.063, which indicates the covariance explains approximately 6.3% of the variance in the dependent variable.

Table 16

*Results of Linear Regression**

	Unstandardized Coefficients		Standardized Coeff.		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.0374	0.0937		32.4251	0.0000

BEHAVIOR_MANAGEMENT SCALE - EFFECTIVENESS	0.1517	0.0234	0.2498	6.4754	0.0000
PBS CODE	-0.1330	0.0448	0.1145	-2.9682	0.0031

* Dependent Variable: Item 2_1 I am satisfied with my job.
(a) Computed using alpha = .05, (b) R Squared = .068 (Adjusted R Squared = .063

Job and principal satisfaction in SW-PBS schools. Two questions related to job satisfaction for SW-PBS staff were included in questionnaire Section IV. The descriptive statistics of frequency and percent of these respondents are reported below. The numbers reflect certified staff only. Approximately three times as many respondents reported being more satisfied with their job since their school had been implementing SW-PBS (Table 17). Approximately two times as many respondents reported being more satisfied with their principal's performance since their school had been implementing SW-PBS (Table 18). Items 4_7 and 4_8 do uphold earlier analyses of Items 2_1 and 2_2 that reports of overall job satisfaction are positive in SW-PBS schools, and while the rates of satisfaction associated with the principal's performance are not as great, they also indicate a positive trend. However, the large number of non-respondents suggests these results should be viewed with caution.

Table 17

N and Frequencies for Item 4_7, More Satisfied with Job (Y/N)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	68	16.3	22.4	22.4
	Yes	236	56.6	77.6	100.0

	Total	304	72.9	100.0
Missing	System	113	27.1	
Total		417	100.0	

Table 18

N and Frequencies for Item 4_8, More Satisfied With Principal's Performance (Y/N)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	90	21.6	30.4	30.4
	Yes	206	49.4	69.6	100.0
	Total	296	71.0	100.0	
Missing	System	121	29.0		
Total		417	100.0		

Phase 3: Demographic Characteristics Related to Schools, Students and Respondents

Demographic Characteristics of Schools and Student Populations

Four primary categories of demographic data associated with schools and students were utilized through stratified random sampling when identifying schools to be included in the study's sample. These categories were free and reduced lunch

percentages, ethnic percentages, size of student population, and geographic location. The following ranges for the schools by category were as follows:

- Free and reduced lunch percentages were 12-77% for SW-PBS schools (average of 40.73%) and 14-75% for non-PBS schools (average of 42.13%).
- Percentages of students identified as non-Caucasian were 6-98% in SW-PBS schools (average of 31.07%) and 1-97% in non-PBS schools (average of 33.07%).
- The numbers of students enrolled were 115-656 (3 small, 7 medium and 5 large for average of 415.33 students) in SW-PBS schools and 198-1070 (4 small, 8 medium, and 3 large for average of 441.67 students) in non-PBS schools.
- Geographic locations were 4 rural or small towns and 3 mid-size cities (equaling 7 in lower population regions), 2 city/fringe and 6 cities (equaling 8 in greater population regions) in SW-PBS schools. For non-PBS schools, 5 were rural and 4 small town (equaling 9 lower population regions) and there were 2 city/fringe and 4 cities (equaling 6 in greater population areas).

Table 19 provides a complete list of these demographic characteristics for all 30 schools. The schools within the sample appear to be well-matched within each of the four categories, with no outstanding areas of difference that would potentially influence

the results from the questionnaire analyses. Therefore, no tests of statistical significance were calculated for any of the categories.

Table 19
Primary Demographic Characteristics Related to Schools and Students

PBS	Survey #	F/R Lunch %	Ethnic %	# Students Enrolled	Geographic Location	Non PBS	Survey #	F/R Lunch %	Ethnic %	# Students Enrolled	Geographic Location
1.	1	35	06	522	ST	1.	30	39	43	296	R
2.	2	59	98	431	C	2.	19	64	97	666	C/F
3.	3	12	08	456	C/F	3.	26	20	01	435	C/F
4.	4	53	09	115	R	4.	24	50	13	239	ST
5.	5	60	06	135	R	5.	17	53	06	198	R
6.	6	17	20	505	C/F	6.	27	27	17	870	C/F
7.	7	23	21	432	C	7.	18	22	25	417	C/F
8.	8	41	75	330	C/F	8.	16	43	41	341	R
9.	9	52	25	329	C/F	9.	25	48	24	334	ST
10.	10	17	22	420	C	10.	21	27	13	462	C/F
11.	11	43	08	577	ST	11.	23	49	12	330	ST
12.	12	43	28	656	MSC	12.	29	42	33	1070	ST
13.	13	63	49	439	C/F	13.	22	59	58	351	R
14.	14	77	66	227	MSC	14.	20	75	72	371	C
15.	15	17	26	656	MSC	15.	28	14	41	245	R

Geographic Location Codes: R = Rural, ST = Small Town, C = City, C/F = City Fringe, MSC = Mid-Sized City * = School has been in existence 2 years

Information related to five other categories of demographic characteristics was collected and included numbers of certified staff, percentages of schools meeting annual yearly progress (AYP) goals associated with Communication Arts and mathematics, attendance rates, and percentages of students identified with disabilities and specifically with emotional behavioral disorders (E/BD). While these categories were not utilized in the sample selection process, a decision was made to collect the data and analyze it to assure there were no areas of outstanding differences associated with them that might influence the results from the questionnaire. The numbers of certified staff reflect the 2005-2006 school year. AYP information is reported in terms of the numbers of years out of the past four that each school met their goals for Communication Arts and mathematics. The percentages reported for attendance rates reflect a 3-year average. The information related to disability percentages is for the 2005-2006 school year. These data are summarized in Tables B.xiii through B.xvii. in Appendix L. A summary of the data from the tables is as follows:

- Ten of the 15 comparisons for numbers of certified staff were in a 10% range, 1 was within 15%, 1 was within 17%, and 3 ranged from 24-30%.
- One SW-PBS school and one non-PBS school did not meet AYP goals associated with Communication Arts for the last four years.
- One SW-PBS and one non-PBS school failed to meet the AYP goals associated with Mathematics during the last 4 years.

- The range of attendance averages for the past 3 years for SW-PBS schools was 94.1-96.2%, and for non-PBS schools was 94.6-96.1%
- The percentage range of students identified with a disability for SW-PBS schools was 9.6-31.7, yielding an average of 17.5. The percentage range for non-PBS schools was 8.4-32.2, yielding an average of 15.7.
- The percentage ranges associated with students qualifying for special education with a diagnosis of E/BD ranged from 0-2.4 for SW-PBS schools and 0-1.4 for non-PBS schools.

The information available from DESE associated with rates of referrals for major discipline offenses was inconclusive in that schools only report the most major offenses that result in removals of 10 or more days cumulative or consecutive. The overall information associated with rates of discipline referrals directly available from the schools either lacked uniformity and was not comparable, or was not available.

Summary of demographic characteristics related to schools sampled. Across the eight demographic characteristics reported, the schools and student populations appear to be relatively well-matched, with no outstanding categories of differences. Therefore, no tests of statistical significance were calculated for any of the eight categories.

Demographic Characteristics of Sample Respondents

The demographic characteristics of respondents were disaggregated by PBS status and by multiple demographic characteristics. The characteristics are reported in detail in Appendix L (Tables B.xviii – B.xxiv). The following tables provide a summary of the most salient results and demonstrate the two samples were well matched.

Table 20

Demographic Characteristics of Sample Respondents by Sex, Ethnicity, Current Position and Highest Degree Earned

Characteristic	SW-PBS	Non-PBS
Male	09.2	7.5
Female	90.8	92.4
Caucasian	95.2	89.7
Non-Caucasian	04.8	10.3
General Education Teacher	65.8	68.0
Special Education Teacher	12.4	11.3
Principal	03.1	05.2
Other Certified Staff	18.6	15.5
Bachelor's = Highest	26.7	39.7
Master's = Highest	63.2	53.4
Above Master's	10.1	06.9

Summary of demographics related to questionnaire respondents. There do not appear to be any categories of demographic data related to questionnaire respondents that would potentially influence the results of questionnaire data analyses. The respondents appear to be well-matched across all categories of data collected. Therefore, no tests of statistical significance were calculated.

Phase 4: Case Studies

Case Studies Results

Results related to SET and focus interviews. As previously stated in Chapter 2, the leadership teams from the three SW-PBS elementary schools demonstrating the highest overall ratings associated with principal leadership skills effectiveness were invited to participate in follow-up interviews. The purposes of the interviews were to (a) expand on information related to successful principal leadership found on the Principal Leadership Skill Questionnaire, and (b) determine if team members shared any insights that might further elucidate what outcomes related to leadership skills they associated with SW-PBS implementation.

The SET results for the three schools confirmed they met criteria to be classified as SW-PBS schools that were implementing with fidelity. The SET data for School 1 indicated a score of 80% on "Expectations Taught" and 100% on all other categories, with an overall average of 97%. The SET data for School 2 indicated an 83% score for "Response to Problem Behaviors" with an overall average of almost 100%. The SET data for School 3 indicated an 88% rating associated with "Expectations Defined" and 100% ratings for all other categories, yielding an overall average of 98%.

The protocols for reviewing, recording and analyzing the focus interviews were followed as reported in Chapter 2. Consistency, communication, and more positive outcomes for students were the major categories that emerged across schools and responses to the interview questions in relation to implementation of SW-PBS. Shared leadership, vision guiding, principal supportiveness, and dedication of resources were

major themes that emerged regarding principal leadership as summarized in Tables 21-26. No suggestions were given by any participants for Question 6, asking for other items or questions to add to the focus interview.

Table 21

Focus Interview Question 1: Job Satisfaction

What, if any, factors related to implementing SW-PBS have increased teacher job satisfaction in your school?			
School 1	School 2	School 3	Primary Categories
Common language and goals Fewer behaviors Consistent expectations across settings and in classrooms Paras and everyone know SW-PBS	Common language All trained together as a staff so all knew common goals New teachers get a mentor to teach them about SW-PBS	Same expectations throughout whole building Lessons in staff handbook encourage us to be on same goals at same time Common language	Common Language Everyone trained to use SW-PBS Common goals across everyone and every setting

Table 22

Focus Interview Question 2: Improved Student Behavior

What, if any, factors related to implementing SW-PBS have improved student behavior in your school?			
School 1	School 2	School 3	Primary Categories
They understand what is expected It is consistent We highlight the same skills in each setting We celebrate their success	We're teaching them the same things We have a whole system at beginning of year to teach them and then throughout the year to remind and reinforce We model them	Using a positive approach The incentives to do the right thing All the staff buys into it now	Consistency in: - Expectations - Teaching them - Using a positive approach

Table 23

Focus Interview Question 3: Improved Behavior in Students At-risk for or Identified with E/BD

Do you find these have also been associated with improved behavior in students who are considered to be at-risk for or already have been identified through special education for emotional or behavioral disorders?			
School 1	School 2	School 3	Primary Categories
Yes. Better communication with parents and among staff has helped them. Consistency and common language across settings do, too.	Yes. We don't have a lot of serious behavior problems. We teach them all day every day what to do. Using the positive approach builds relationships with them.	Yes. We are all consistent and the principal gives incentives to them to do well. We use the universals, but also have mentors for them and small groups as needed. We want to be more proactive.	Better communication among all stakeholders. Consistency and common language help them. Incentives and positive recognition.

Table 24
Focus Interview Question 4: Changes in Principal Leadership Style

What, if any, changes in your principal's leadership style do you believe might be associated with implementing SW-PBS?			
School 1	School 2	School 3	Primary Categories
She initiated it and has gradually turned over leadership responsibilities. She is always in contact with us informally but lets us lead decisions about what we need now.	Maybe or maybe not PBS. She's good at keeping the communication going and uses PBS as part of guide for her walk-through observations in classrooms.	Yes – very child-centered and set a tone for all that is positive. Think this increased because of PBS. More of a team member than leader now.	More shared leadership. Leader gives vision and guidance, but lets team lead. More effective communication. Didn't so much change principals as enhanced positive attributes.

Table 25

Focus Interview Question 5: Other Principal Changes

Are other changes in principal that might be associated with implementing SW-PBS?			
School 1	School 2	School 3	Primary Categories
Better at dedicating monies and time now.	She gives helpful feedback and is supportive of the process.	More supportive of staff trainings and time for committees.	Overall improved supportiveness. Better at dedicating resources to PBS.

Table 26

Summary of Major Themes by School

School 1	School 2	School 3
Consistency and communication PBS is now second nature Positive outcomes for all kids Continuum of supports Principal supports, lets us lead Principal dedicates time & resources for PBS	Consistency and communication Veteran PBS building & do things as a matter of course Like the positive outcomes for all children it has encouraged Principal actions/behavior Maybe or maybe not associated with PBS	Consistency and communication Veteran building so just the way we do things now Leader guides vision but allows teachers to lead Dedicates resources.

Results related to office discipline referrals. School 1's overall number of office discipline referrals (ODR) per year has dropped from 378 during year 1 to 149 at the close of the 05-06 school year, for a 61% reduction. School 2's overall ODR has dropped from 285 during year 1 to 103 at the end of the 05-06 school year, for a 64% reduction. School 3's total number of referrals has dropped from 760 during year 1 to 214 at the end of the 05-06 school year, for a 72% reduction. As previously discussed in Chapter 2, information from ODR may be viewed as one indicator to assess the adequacy and/or impact of implementing procedures to improve behavior management. Because there was a standard method of collecting and assessing ODR across these three schools through the School-wide Information System (SWIS) (May, et al., 2000) this provided a common metric of comparison.

Triangulation of results from case studies. The primary themes as summarized below will be matched to questionnaire items identifying similar skills by item numbers listed in parentheses. The results from the focus interviews supported the findings from the questionnaire in their emphasis on consistency (12, 13, and 30), communication (15, 29, and 31), shared leadership (3, 11, 21, 22, and 24), principals' providing access to resources to support implementation of the SW-PBS process (9, 19, and 26), principals' vision guiding (2, 22, and 25), and principals' support of the team process(23 and 24). The consensus across the teams appears to suggest that rather than SW-PBS changing principals, it enhances characteristics and skills already in evidence.

Schools 1 and 2 are beginning their 5th year of SW-PBS and have had the same principal throughout. School 3 is beginning its' 6th year of SW-PBS, has had 2 principals during the first 5 years, and is beginning the current school year with their 3rd principal. Staff at each school commented that it is now integrated so well into the school's operating procedures that they regard it as "just the way we do business" and "its second nature to us now." The high scores on the SET assessments appear to support the perceptions and comments of the staff members. The overall ODR rates have dropped significantly at all three schools. The leadership team members did not address this directly, but did report that there are positive outcomes for all students from implementing SW-PBS.

CHAPTER IV

DISCUSSION

The purposes of this four-phase study were to (a) identify key principal leadership skills associated with socially proactive school environments, in relation to principal transformational, managerial, and behavior management skills, through a systematic review of the professional literature and development of a questionnaire instrument to assess the identified skills (Purpose 1, Phase 1): (b) examine the relationship between SW-PBS implementation and increased evidence of those skills through the administration of the questionnaire to certified staff and principals in 15 SW-PBS schools and 15 non-PBS schools (Purpose 2, Phase 2): (c) examine the relationship between evidence of those skills and improved certified staff job satisfaction through questionnaire items analyses and examination of demographic variables associated with the schools and respondents participating in the study (Purpose 3, Phase 3): and (d) examine leadership skill variables associated with SW-PBS and recommendations from the field that support increased certified staff job satisfaction, effective student behavior management and principal leadership skill acquisition through the alignment of questionnaire and case studies results (Purpose 4, Phase 4).

An overarching purpose of the study was to initiate a line of research associated with principal leadership and SW-PBS. Principals' need for appropriate training and support associated with proactive behavior management, particularly in relation to students at-risk for or identified with E/BD has been well documented in the literature (Crockett, 2002; Goor & Schwenn, 1997; Marzano, et al. 2005; Patterson & Protheroe,

2000; Powell & Hyle, 1997; Sirotnik & Kimball, 1994; Taylor & Baker, 2002). SW-PBS has demonstrated promise in addressing these needs (Horner, et al. 2005; Luiselli, et al. 2005; Stormont, et al. 2005; Taylor-Greene, et al.1997; Walker & Horner, 1996). If SW-PBS is to be utilized in relation to pre-service and in-service training for principals in leadership skills associated with establishing and maintaining proactive social/behavioral school environments, it is imperative to identify which specific leadership skills are most salient. Second, it is prudent to assess what knowledge and skills have already been established as effective and to build from that base.

The literature across the three domains of transformational, managerial, and behavior management presented in Chapter 2 and the results from the four phases of this study are congruent. There are specific principal leadership skills that are supported by the literature and valued by certified staff and principals. The principals' implementation of the skills as assessed in this study varied, with the largest variance associated with behavior management effectiveness. This is also the set of skills most directly related to increased certified staff job satisfaction. The literature has pointed to the need for more and better training in this area, as have principals' self-reports. When considering how to bridge the research-to-practice gap that is often cited in the literature (Abbott, Walton, Tapia, & Greenwood, 1999; Gottfredson & Gottfredson, 2001; Klinger, et al. 2001; Marzano, et al. 2005; Sugai & Horner, 1999; Young, et al. 2002), it is imperative to consider the results from studies such as this, albeit descriptive, that give information and insight into the attitudes and needs of practitioners.

This was an exploratory study, designed to identify which principal leadership skills associated with socially proactive school environments were upheld by the literature and validated by practitioners in the field. It was also designed to assess what, if any, impact SW-PBS training and implementation had in relation to the evidence of increased principal leadership skills.

Three domains of principal leadership emerged as most closely aligned with those of socially proactive school environments: transformational, managerial, and behavior management. The domains of transformational and managerial leadership have established bases of research and traditions of implementation to support their efficacy (Cotton, 2003; Hallinger & Heck, 1998; Leithwood, et al. 2004; Marzano, et al. 2005; Valentine, 2001). Principal leadership related to behavior management has been the subject of fewer studies and lacks an agreed-upon set of skills to be researched in relation to assessing their efficacy or their fidelity of implementation. School-wide PBS has demonstrated promise in supporting principals to establish school environments that are supportive of all staff and students. There are also specific principal leadership skills recommended through SW-PBS literature and training that include (a) ones also recommended through transformational and managerial sources, and (b) ones specifically associated with behavior management (Colvin & Sprick, 1999; Horner, et al. 2005; Lewis & Sugai,1999). However, the lack of empirical research associated with the recommendations regarding leadership and SW-PBS is problematic. Studies such as this are imperative if SW-PBS recommendations associated with principal leadership are to be trustworthy. SW-PBS's demonstrated promise in increasing principal behavior

management leadership skills is upheld by the results from this study, particularly related to the higher rates of principal behavior management leadership skills effectiveness and the increased rates of certified staff job satisfaction in SW-PBS schools as compared to non-PBS schools.

Multiple steps were taken to: (a) identify key leadership variables, (b) assure adequate sample sizes, (c) follow well-established procedures while conducting the study, (d) develop an instrument based on validated skills, content and constructs, (e) report results utilizing established statistical and descriptive procedures, and (f) report outcomes based on effect sizes results and power when applicable. In this way, future researchers may utilize the results for replication studies. The results are reported in relation to the research questions asked and the phases and purposes of the study to adequately uphold its' social validity. Limitations of the study, implications for practice, and recommendations for future research are presented in the final sections of the chapter.

Development and Psychometric Properties of the Principal Leadership Skill Questionnaire

The evaluation of the importance and evidence of the 31 principal leadership skills associated with the domains of transformational, managerial, and behavior management in SW-PBS and non-PBS schools served as the foundation for the structure and contents of the Principal Leadership Skill Questionnaire (Appendix A). These skills are associated with the establishment of proactive school environments capable of supporting all staff and all students (Copland, 2001; Horner, et al. 2005; Leithwood & Jantzi, 1997; Lewis & Sugai, 1999a; Lucas & Valentine, 2002). Given that this

questionnaire was the first to examine these skills in tandem, and more specifically to include skills directly associated with behavior management, it was important to examine its validity if the results were to be accepted with confidence.

Prior research and survey results have examined the effects of various numbers and combinations of these skills in relation to teacher/staff satisfaction, effective school climates and cultures, student success, and establishment of safe and orderly school environments (Gottfredson & Gottfredson, 2001; Heck, 1992; Leithwood & Jantzi, 2000; Leithwood, et al. 2004; Newmann, Rutter, & Smith, 1989). The results of the surveys indicated varying degrees of positive relationships between principal/administrator usage of the skills and improved outcomes for staff and students.

The identification and cross-referencing of the 31 skills to those reported through professional literature as being most representative of the three domains ensured a sound basis for their selection. Guidelines for survey research in general and for questionnaires assessing principal leadership skills were identified through (a) reviewing texts and resources outlining steps in the survey research process and (b) reviewing questionnaire instruments utilizing a similar Likert-scale format. Next, the proposed instrument was reviewed by an expert in SW-PBS, an expert in principal leadership, and two survey development experts. Their suggestions related to overall format, layout of sections, and clarity of wording of items were incorporated. The statistical analysis of the six subscales indicated a strong positive association among each set of subscales and that the two sets of subscales were measuring different variables.

The overall content and construction of the questionnaire demonstrate its' acceptability for the assessment purposes outlined in this study. The items were based on a substantial body of literature from peer-reviewed sources across general education and special education sources. It was important to review sources from both fields given that (a) each are invested in successful outcomes for principals, staff and students and (b) each have a unique perspective that can complement the other.

Questionnaire Distribution and Analysis Considerations

A series of steps were followed to identify schools to participate in the study. To assure that schools implementing SW-PBS with fidelity were accurately identified, a set of a priori decisions regarding what constituted implementation fidelity was established. The 15 elementary SW-PBS schools selected met all indicators. Fifteen comparison schools also met all indicators. This provided a sample that could be assessed with confidence in terms of meeting the purposes of the study.

Considerations Related to Leadership Skill Importance

Leadership skill importance ratings for transformational skills indicate respondents from SW-PBS schools ranked 7 of the items higher than did those from non-PBS schools. The differences, however, were small (less than .1) per item. These findings support those of multiple researchers within the field of principal leadership (Hallinger & Heck, 1998; Leithwood & Jantzi, 1997; Lucas & Valentine, 2002), and suggest that staff as well as principals value skills 1-11 as being important indicators of principal leadership.

The respondents were in relative agreement across school status and position regarding the importance of managerial leadership skills as well. Respondents from SW-PBS schools ranked 6 of the 8 items higher than did those from non-PBS schools. However, the responses for these items were across a very small range, with only .103 separating the highest from the lowest, indicating not only high levels of agreement but highly congruent assessments of the importance of each item. These findings also support previous research and indicate schools that are well-managed in relation to the day-to-day operating procedures are highly valued by certified staff and principals (Copland, 2001; Leithwood & Duke, 1999; Valentine, 2001).

Behavior management importance demonstrated differences across groups related to SW-PBS status. Although the observed power for this test was .678, two trends within the results bear consideration: (1) SW-PBS respondents assessed all 12 items at higher rates than did those in non-PBS schools, and (2) the range of responses across items in non-PBS schools was larger than in SW-PBS schools. The fact that respondents in SW-PBS schools ranked all of these items more highly than did those in non-PBS schools indicates a trend toward a higher valuing of these leadership skills, as does the smaller range of scores within this group. This finding is logical in that SW-PBS personnel are more likely to have been exposed to and systematically trained in principles of effective behavior management. Additionally, these respondents are associated with schools verified to have established working systems of SW-PBS through the initial selection process for inclusion in this study.

These results may be useful in forming an overall assessment of the effects of implementing SW-PBS rather than specifically pointing to a significant difference between the groups. The overall average for the rating of scores for all respondents associated with behavior management is closest to the response "strongly agree." The results of this subscale also support prior research which emphasizes the importance of a safe, orderly, and socially proactive school environment (Lewis, et al.1998; Liapsun, et al. 2004; Luiselli, et al. 2005; Scott, 2001; Sugai & Horner, 2001).

All item ratings associated with importance through the subsets of transformational, managerial, and behavior management skills were high. The respondents' ratings indicate each of these skills truly is viewed as important. These ratings substantiate the professional literature associated with the importance of these principal leadership skills across the three domains. There does not appear to be a research to practice gap across these three domains, but rather a strong agreed upon foundation on which to move forward.

Considerations Related to Leadership Skill Effectiveness

When reviewing the results in relation to the descriptive statistics of SW-PBS status by item for the transformational effectiveness subscale, SW-PBS school principals received higher ratings for each item. Although the results for this test were not statistically significant, they support the aforementioned trend of higher favorability related to SW-PBS across questionnaire items, which bears consideration. When reviewing the results in relation to the descriptive statistics of SW-PBS status by item for the managerial effectiveness subscale, SW-PBS school principals received higher ratings

on 5 of the 8 items. This would indicate the overall results related to principal managerial effectiveness are more mixed than those associated with transformational effectiveness.

The principal behavior management effectiveness subscale demonstrated the most significant statistical difference of the six subscales, and supports the premise of SW-PBS literature that principal/administrative support is a key component of establishing socially proactive school environments (Lewis & Sugai, 1999a; Scott & Hunter, 2001; Sugai, et al. 2004). Given the observed power of the test was .811; the results can reasonably be accepted as detecting a true relationship. These results establish that, in relation to this study, there is a significant positive difference in the assessment of certified staff and principals as to the overall effectiveness of principals in exhibiting skills related to behavior management in SW-PBS schools. This is in keeping with previous descriptive reports from SW-PBS schools (Colvin & Sprick, 1999; Horner, et al. 2000; Taylor-Greene & Kartub, 2000). These results are also supported by individual item results within the subscale. Principals in SW-PBS schools were assessed at higher rates on all items. This is also in keeping with the results of the Principal Leadership Skill Questionnaire in that (a) the 31 identified skills were highly rated in terms of importance for staff and principals in SW-PBS and non-PBS schools and (b) ratings of skills related to transformational and managerial effectiveness were relatively equal for SW-PBS and non-PBS schools but differed significantly in terms of behavior management skills.

Summary of results related to skill importance and effectiveness. The results of the three tests of subscales associated with principal leadership importance indicate those

skills associated with transformational and managerial leadership are assessed at relatively equal levels across SW-PBS status and position. The small statistically significant difference related to behavior management, while noteworthy, should be viewed in context with its relatively low power.

The results of the three tests of subscales associated with principal leadership effectiveness indicate that principals and staff assess the effectiveness of principals in relation to transformational and managerial skills as relatively equal in SW-PBS and non-PBS buildings, but that principals in SW-PBS buildings demonstrate greater effectiveness in relation to skills associated with behavior management.

When considering the results of the six subscales in tandem, patterns of responses are evident. First, items across the 3 importance subscales received very high ratings, indicating that most respondents value these 31 leadership skills. Second, while the responses across the same items in relation to principal effectiveness were not as high, the lowest rating was 3.807. This indicates responses overall were most closely aligned with the descriptor "is effective." While this implies room for improvement, it also implies that principals' demonstration of leadership skills overall is satisfactory. Third, the lowest rating on an individual item was within the behavior management effectiveness subscale ("supports/recognizes staff who implement proactive behavior management plans"). The item was rated lowest by SW-PBS and non-PBS respondents, and is worthy of emphasis. This same item was rated substantially higher in terms of importance by both groups. If certified staff members are to be supported in their efforts

to implement proactive behavior management plans and techniques, administrator support is imperative.

Demographic Information

Information related to demographic characteristics associated with the schools, student populations, and the respondents was collected and compared to rule out potentially confounding variables associated with the results of this study and is aligned with Purpose 3. The school and student demographics related to F/R lunch percentages, percentages of minority students, size of student population, geographic location of schools, percentages of students identified for special education services in general and E/BD specifically, and AYP status for communication arts and mathematics demonstrated no areas of outstanding differences that would potentially influence the results of the analysis.

Information related to demographic characteristics of the respondents yielded no areas of difference greater than 6% across the following categories: gender; race; highest degree earned; percentage of staff currently employed as general education, special education, and/or principal staff; and years of experience associated with general education, special education, and/or principal positions. No demographic variables associated with the schools, student populations or respondents appeared to confound the results of the study. The groups are well-matched.

Certified Staff Members' Job Satisfaction Rates

The SW-PBS respondents reported a statistically significant higher rate of satisfaction compared with the non-PBS respondents. The literature from

transformational, managerial and SW-PBS sources has emphasized a direct positive effect on teacher job satisfaction from the implementation of leadership skills associated with these domains, and is substantiated by the results from this study (Day, 2000; Guthrie, 2002; Hallinger & Heck, 1998; Lashley & Boscardin, 2003; Lucas & Valentine, 2002; Nelson, 1996; Netzel & Eber, 2003; Walker & Horner, 1996).

The value add of SW-PBS appears to account for the difference in the job satisfaction rates as reported above. Given that concerns related to student behavior management and establishment of safe and orderly school environments are associated with teacher job satisfaction (Charles, 1999; Johnson & Birkeland, 2003; DiPaola & Walther-Thomas, 2003), the direct training in establishing socially proactive school environments and strategies to reduce problem behaviors provided through SW-PBS is a logical connect-point to increased job satisfaction by certified staff. Other factors associated with SW-PBS that are supported through the literature as increasing job satisfaction are: (1) principals actively participating in professional development initiatives (Cotton, 2003; Yoon & Gilchrist, 2003), (2) principals consistently collaborating with staff on the implementation and assessment of school initiatives (Lucas & Valentine, 2002; Marzano, et al., 2005), and (3) general principal support for the day-to-day challenges staff members face (Horner, et al., 2005; Lewis & Sugai, 1999b; Waters, et al., 2003).

While it would be presumptive to hypothesize what specific factors associated with SW-PBS account for the disparity in ratings of certified staff job satisfaction, the statistically significant difference found through item 2_1, “I am satisfied with my job,”

as well as the information provided through sources as outlined above, appears to uphold the identification of SW-PBS implementation as a factor in job satisfaction.

Job Satisfaction and Principal Effectiveness

The z-test of independent proportions utilized to analyze this question demonstrated there was no statistically significant difference between the respondents in SW-PBS or non-PBS schools. In fact, the results were very close with SW-PBS respondents reporting a .7957 rating and non-PBS respondents reporting a .7903 rating. While the majority of certified staff respondents across the samples did agree that principal effectiveness increased their job satisfaction, SW-PBS status does not appear to influence their assessments of principal effectiveness.

Job Satisfaction, Principal Behavior Management Effectiveness, and PBS Status

Research question 5 extends the exploration of research question 4 by directly focusing on principal behavior management effectiveness. When job satisfaction was utilized as the DV, and the behavior management effectiveness scale and SW-PBS status were used simultaneously as the IV's, the results indicated a statistically significant positive relationship for principal behavior management effectiveness and a statistically significant negative relationship for SW-PBS status. When SW-PBS status had been analyzed previously in relation to certified staff job satisfaction, it demonstrated a statistically significant greater proportion of SW- PBS respondents were satisfied with their jobs. The results of these two findings taken together indicate that while SW-PBS status increases job satisfaction, it is secondary to, and in fact decreases in relation to effective principal behavior management's influence on certified staff job satisfaction.

These results are in alignment with the literature that emphasizes the strong relationship between teachers' job satisfaction and their perceptions of administrative support regarding student discipline and inclusion of students with diverse needs (Charles, 1999; Johnson & Birkeland, 2003; Learning First Alliance, 2005; Noell & Witt, 1999; Richards, 2005; Walter-Thomas & Bryant, 1996; Yoon & Gilchrist, 2003). More specific and targeted training for principals related to SW-PBS and leadership might increase their demonstration of these skills, thereby making their influence more apparent.

Job and principal satisfaction in SW-PBS schools. The results of the two questions associated with job and principal satisfaction for SW-PBS certified staff members in questionnaire section 4 reinforce patterns of responses previously identified in that: (a) certified staff reported significantly larger percentages associated with increased job satisfaction than not and (b) there were larger percentages of responses associated with increased principal satisfaction, but not to the same degree as those reported for job satisfaction. The results are reported to potentially extend the findings above. When asked these questions specifically within their assessment of the SW-PBS process section of the questionnaire, respondents reaffirmed the patterns from questionnaire section 2, thereby reinforcing the patterns of responses already identified.

Considerations of the results associated with principal effectiveness, job satisfaction, and SW-PBS status. It is conceivable that SW-PBS certified staff do not perceive as direct of a connection between SW-PBS implementation and principal effectiveness because: (a) SW-PBS emphasizes a leadership team approach whereby the principal is a member rather than the leader, (b) the empowerment of certified staff to

assume leadership roles associated with decision-making regarding student behavior management issues may decrease the likelihood that staff would directly associate increased principal behavior management effectiveness with SW-PBS, and (c) to date there have not been targeted trainings for SW-PBS principals associated with increasing their leadership effectiveness and role in behavior management.

Results Associated with Case Studies

The major themes from the interviews reinforced rather than expanded earlier findings. Respondents identified the following: (a) factors associated with common goals and language and school-wide training as increasing their job satisfaction, (b) factors associated with consistency in school expectations and teaching them and using a positive approach as improving behavior of all students, including those with more significant needs, and (c) the principals now shared leadership more and provided resources more readily, but overall it didn't so much change principals as enhanced skills team members already perceived as in evidence.

Taken together, the interview results and archival data support the high ratings of the principals on the Principal Leadership Skill Questionnaire. These are schools in which day-to-day operations appear to be running smoothly, rates of discipline referrals have fallen dramatically, the team members are empowered to help lead the SW-PBS process, and the principals actively support and participate in the process. These results relate to questionnaire items included in the subscales and reinforce their value to school personnel.

Limitations of the Study

This study was descriptive in nature in that no variables were directly manipulated and the results are based on respondents' self-reports. While this was appropriate to begin the establishment of a line of research and to tentatively inform the field (Stichter & Conroy, 2004; Thompson, et al. 2005), results should be viewed with some caution. They can best be interpreted as establishing some tentative relationships between SW-PBS and principal leadership skills.

A second limitation is associated with respondents' characteristics. First, the sample of respondents represented one geographic area (the state of Missouri). Second, respondents from SW-PBS schools were trained through a set of modules sanctioned by the state that might not match the training procedures of other areas or states. Third, the criteria established to identify schools as implementing SW-PBS with fidelity might vary from those deemed as indicative of fidelity in another sample. Finally, although the demographic characteristics of the schools and respondents included were described in detail, those within another sample might vary enough to confound the replicability of the study.

Consideration should also be given to the large sample size in relation to the statistical outcomes. This is a potential limitation when considering how much credence should be given to those variables that yielded statistically significant results. Although the pattern of results across research questions suggests the variables that demonstrated statistical significance were reliable, the effects should still be viewed with appropriate caution.

A reality and potential limitation of any research in applied settings such as schools is the recognition that permission must be obtained to conduct the study. In this study, the principals who granted permission were also cognizant they were the subjects of inquiry. It is possible that the principals who agreed to allow their schools to participate were also stronger principals in general who were more confident that their staff members' assessments would be favorable.

Another limitation applies to the questionnaire instrument developed for the study. Given that the instrument was developed for this study, there are no prior studies to support its efficacy. While content validity, internal reliability and construct validity were addressed, the use of the instrument would require repeated applications before these could be truly substantiated. The external validity of the instrument should be addressed through replication of the study as well as assessment of the potential use of the instrument in relation to principal leadership skills, certified job satisfaction, and student behavior management by practitioners in applied settings (Simpson, 2004).

Implications for Practice

Several implications can be derived from this study for professionals associated with principal leadership training. First, the results uphold the literature in that principal leadership skills across the three domains of transformational, managerial, and behavior management were all assessed at high rates of importance. Principal pre-service and in-service programs should incorporate specific training across all three domains if principals are to be adequately prepared to meet the challenges of their positions. Second, principal behavior management skills were not only identified as important but

were definitive across the analyses within this study as being most significant. The literature review provided multiple examples of the importance of these skills to principals and to certified staff in relation to job satisfaction, student management, and as an indirect link to student achievement. This is an area upheld by researchers and practitioners as critical, and should be the focus of increased emphasis to provide principals with not only training, but active support in the field.

Principals face challenges unique to each setting in which they lead. Ongoing supports through SW-PBS are warranted to assist principals in assessing specific features within their schools and what kinds of behavior management skills and interventions would best fit specific environments. Principals have reported a need for more training associated with students with diverse learning needs and social skills deficits, special education law, and supporting effective interventions (DiPaola & Teschan-Moran, 2003; Monteith, 2000; Patterson, et al. 2000; Praisner, 2003. It is incumbent upon both principal leadership and special education training programs to provide these.

Implications for Future Research

The high level of agreement across all respondents in this study indicates the 31 leadership skills are highly valued and are worthy of continued research. If the skills were more clearly operationalized in terms of specific actions principals exhibit it could assist researchers and instructors in leading principals toward a more thorough understanding of how best to utilize them. It could also help principals to self-reflect on their progress. For instance, skill #1 states “Leads staff in establishing a school vision.” This could be interpreted in multiple ways. More sophisticated research efforts focused

on identifying specific variables associated with each skill could more readily uphold the usability of the skills, thus allowing for a more complete understanding of them.

Principals in SW-PBS schools demonstrated higher rates of effectiveness across all three subscales, and most significantly in relation to behavior management. This would imply that more research is needed to determine if these findings are consistent across differing schools, populations of respondents and geographic areas. Determining what features of SW-PBS training have supported improved leadership skills, and what types of supports and training principals would identify as most necessary are two possible lines of study related to this question.

Certified job satisfaction rates were statistically significant in favor of SW-PBS schools. In future studies would this statistical significance be verified, and if so, what practical significant would it imply beyond the advisability of schools being trained in SW-PBS and implementing it with fidelity? What specific factors associated with job satisfaction might SW-PBS support?

There was no statistical significance to the findings associated with principal effectiveness and its' relation to certified staff job satisfaction but practical significance was apparent in that respondents in SW-PBS schools did report higher rates of satisfaction in relation to principal effectiveness across two questionnaire items. Extending this line of inquiry would be beneficial to the field in multiple ways: (1) what specific factors of principal effectiveness do certified staffs value more highly, (2) of those, which are or should be included in models of specialized principal trainings associated with SW-PBS, and (3) does an assessment instrument such as the Principal

Leadership Skill Questionnaire potentially assist principals to self-reflect and identify areas of training from which they would benefit?

When principal behavior management effectiveness and SW-PBS status related to certified staff job satisfaction were simultaneously examined, behavior management effectiveness was clearly more valued. Possible reasons for this outcome were previously discussed in Chapter 4. Future research in relation to these findings would be beneficial regarding each of the 12 skills within the behavior management skills subscale and how they interact with SW-PBS training components and support through ongoing coaching.

In summary, this study presented a broad-based exploratory set of information designed to open the research of SW-PBS and principal leadership. The information gained from this study could benefit from multiple replications utilizing the same or a very similar format, and/or through more explicit research associated with specific variables within it to uphold its' content and construct validity and to increase its' external validity. As Kern and Manz pointed out (2004), aspects of SW-PBS are still in need of empirical research to corroborate its' efficacy. This study is conducive to replication in applied settings across a wide variety of schools and geographic areas through partnerships with school staffs and researchers with minimal time investments on the part of school personnel.

Conclusion

This study has extended the research associated with principal leadership skills and SW-PBS in several ways. First, the set of specific leadership skills included in the

study have provided a basis grounded in peer-reviewed literature of skills that should be actively addressed in school-wide PBS research. The information and results provided through this study demonstrate that there is a trend of improved principal leadership skills and certified job satisfaction associated with SW-PBS. This opens the doors to more effectively identifying exactly how, when, and where SW-PBS should improve its efforts in relation to principals' training.

The study also demonstrates the necessity for collaborative research efforts across the disciplines of principal leadership and special education, and the viability of SW-PBS as a bridge between the two. Each of these disciplines is faced with similar challenges. The alignment of NCLB and IDEA 2004 and their combined emphases on highly qualified staff, utilizing research-based practices, and the necessity for ensuring improved student achievement for all students necessitates the joining of efforts to best meet the challenges ahead. Because the foundations of SW-PBS are grounded in general education and special education research and issues, it is a logical link between the two.

Finally, the results demonstrate that there is a viable connection between the research associated with principal leadership skills and practitioners in the field. Practitioners have demonstrated they value information related to principal leadership skills and they are seeking to become more knowledgeable about them. If we are to continue to bridge the research-to-practice gap and bring effective strategies to bear in schools regarding principal leadership skills and SW-PBS, it is prudent to establish lines of research that are valued and relevant to all stakeholders.

Survey Code #_____

Appendix A: Principal Leadership Skill Questionnaire

The following survey will take approximately 20 minutes to complete.

The purpose of this questionnaire is to (1) determine the opinions of teachers and principals toward the importance and evidence of key leadership skills and (2) gather information about the types of training and experience teachers and principals have. There are no right or wrong answers and all information will be confidential. Participation is voluntary. *Your input is important. Please answer each question with what you believe.*

Section I - Assessment of Principal Leadership Skills

Directions: *Please* ***circle*** *the response on the left of each statement that most closely matches your assessment of the importance of that skill for principals to possess. Please* ***circle*** *the response on the right of each statement that most closely matches your assessment of your principal's overall skill level in that area.*

Importance of Skill					**Skill**	**Principal Rating**				
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		Does Not Exhibit this Skill	Exhibits Skill but is Not Effective	Is Somewhat Effective	Is Effective	Is Very Effective
1	2	3	4	5	***1. Leads staff in establishing a school vision***	1	2	3	4	5
1	2	3	4	5	***2. Leads staff in establishing a set of goals to implement vision***	1	2	3	4	5
1	2	3	4	5	***3. Actively encourages staff input and participation to prioritize goals***	1	2	3	4	5
1	2	3	4	5	***4. Works toward whole staff consensus on important school-wide issues and goals***	1	2	3	4	5
1	2	3	4	5	***5. Models and uses problem-solving skills to help staff reach consensus***	1	2	3	4	5
1	2	3	4	5	***6. Uses data to help staff prioritize goals***	1	2	3	4	5
1	2	3	4	5	***7. Maintains high performance expectations for all staff***	1	2	3	4	5
1	2	3	4	5	***8. Encourages and supports staff to self-evaluate progress in implementing school-wide goals***	1	2	3	4	5

1	2	3	4	5	***9. Provides professional development activities to support school-wide goals***	1	2	3	4	5
1	2	3	4	5	***10. Actively models skills that support school-wide goals***	1	2	3	4	5
1	2	3	4	5	***11. Establishes leadership teams to guide implementation of school-wide goals as needed***	1	2	3	4	5
1	2	3	4	5	***12. Provides and enforces clear school-wide systems***	1	2	3	4	5
1	2	3	4	5	***13. Provides and enforces clear school-wide practices***	1	2	3	4	5
1	2	3	4	5	***14. Consistently monitors and modifies school-wide systems and practices as needed***	1	2	3	4	5
1	2	3	4	5	***15. Keeps staff up-to-date on modifications to school-wide systems and practices***	1	2	3	4	5
1	2	3	4	5	***16. Anticipates predictable problems and effectively responds to them***	1	2	3	4	5
1	2	3	4	5	***17. Assures school compliance with district, state, and federal regulations***	1	2	3	4	5
1	2	3	4	5	***18. Promotes staff cohesion and cooperation***	1	2	3	4	5
1	2	3	4	5	***19. Provides staff with materials, resources, and shared planning times as needed to implement school-wide goals***	1	2	3	4	5
1	2	3	4	5	***20. Actively exposes staff to research and rationale that supports the effectiveness of school-wide behavioral management systems***	1	2	3	4	5
1	2	3	4	5	***21. Includes staff in decision-making Regarding behavioral management issues***	1	2	3	4	5
1	2	3	4	5	***22. Established a leadership team to guide implementation of school-wide behavior management system***	1	2	3	4	5
1	2	3	4	5	***23. Publicly supports this team's efforts***	1	2	3	4	5
1	2	3	4	5	***24. Is an active participant on this team***	1	2	3	4	5

1	2	3	4	5	***25. Supports this team's efforts to formulate an action plan to implement school-wide behavioral management plan***	1	2	3	4	5
1	2	3	4	5	***26. Provides resources to implement school-wide behavioral management plan***	1	2	3	4	5
1	2	3	4	5	***27. Supports and recognizes staff who implement proactive behavioral management plan***	1	2	3	4	5
1	2	3	4	5	***28. Supports and recognizes students who display improved behavioral/social skills***	1	2	3	4	5
1	2	3	4	5	***29. Regularly informs students, staff, parents, and community about procedures and progress toward meeting behavioral management goals***	1	2	3	4	5
1	2	3	4	5	***30. Consistently maintains agreed upon school-wide behavioral management standards, systems, and practices***	1	2	3	4	5
1	2	3	4	5	***31. Ensures all staff know, understand, and follow agreed upon school-wide behavioral management standards, systems, and practices***	1	2	3	4	5

Section II - Job Satisfaction

<u>Directions:</u> Please put an "x" in the space next to the selection that best fits your opinion:

1. I am satisfied with my job:

____ 1 (strongly disagree) ____ 2 (disagree) ____ 3 (agree) ____ 4 (strongly agree)

2. My principal's leadership makes me more satisfied with my job:

____ 1 (strongly disagree) ____ 2 (disagree) ____ 3 (agree) ____ 4 (strongly agree)

Section III – Demographic Information

<u>Directions:</u> Please put an "x" in the space next to the selection that best fits your status:

1. Gender:
   ____ Female ____ Male
2. Highest academic degree earned:
   ____Bachelor ____Masters _____ Specialist ____EdD ____PhD
3. I am currently employed as a:
   ____ General Education Teacher ____ Special Education Teacher ____ Principal
   ____ Assistant Principal ____Other: Please explain_____
4. Ethnic Background:
   ____ Hispanic ____African American ____Caucasian ____ Asian
   ____ American Indian ____ Other: Please explain_____
5. Areas of Educational Certification *(put an "x" next to all that apply):*
   ____ Early Childhood ____ Elementary ____Middle School ____High School
   ____ Cross-Categorical Special Education ____ Learning Disabilities ____ E/BD
   ____ Severely Developmentally Disabled ____ Mental Retardation ____ECSE
   ____ Elementary Administration ____ Secondary Administration
   ____ Special Education Administration

<u>Directions</u>: Please fill in the blanks below with the number of total years, including this school year; you have worked in the following categories. Put a "0" next to any category in which you have never worked.

6. Years of full-time general education teaching experience: _____
7. Years of full-time general education teaching experience in this school: _____
8. Years of full-time special education teaching experience: _____
9. Years of full-time special education teaching experience in this school: _____
10. Years as a principal: _____
11. Years as a principal in this building: _____
12. Years as an assistant principal: _____
13. Years as an assistant principal in this building: _____

Section IV - Specialized Training Experience

<u>Directions:</u> Please put an "x" in the space that best fits your situation:

1. I have participated in at least one School-wide Positive Behavioral Support (SW-PBS) training:
   ____ yes ____ no

If you marked "no", do not answer the rest of Section 3.

2. I attended SW-PBS training for the first time during the _____ school year.

3. I have attended SW-PBS training during more than one school year:
   ____ yes ____ no
4. I have attended at least one SW-PBS training as a member of a school team:
   ____ yes ____ no
5. I am currently employed in the same building with which I attended SW-PBS training:
   ____ yes ____ no
6. My school currently uses school-wide PBS:
   ____ yes ____ no
7. I am more satisfied with my job since my school has been using PBS:
   ____ yes ____ no
8. I am more satisfied with my principal's job performance since my school has been using PBS: ____ yes ____ no
7. I am currently a member of a building SW- PBS leadership team:
   ____ yes ____ no
8. I was formerly a member of a building SW-PBS leadership team:
   ____ yes ____ no
9. I have taken coursework in PBS through a college or university:
   ____ yes ____ no

Thank you for taking the time to complete this survey. Your opinions are important. Please return the completed survey to the designated person in your building.

Appendix B: Principal Introductory Letter and Consent

March 22, 2006

Dear _____;

Your school has been selected to participate in a project designed to gather information about effective schools and Positive Behavior Support (PBS). The study has been approved by the University of Missouri-Columbia Institutional Review Board. The purpose of the project is to identify leadership factors that impact administrators and teachers on a day-to-day basis in schools and to investigate if PBS assists school personnel in establishing the kind of educational environment they would like to have. To specifically examine PBS, a balance of representative schools that do and do not currently implement PBS is needed. Your school was selected based on the number of students enrolled, the percentage of students receiving free/reduced lunch, and if the school does or does not actively participate in PBS at this time.

Should you agree to participate in the project, the following activities could be included:

- Teachers and administrators would complete a questionnaire that would take no longer than 20 minutes.
- Demographic data related to free/reduced lunch participants, numbers of students in special education services, discipline reports, MAP results, and numbers of students, teachers, and administrators assigned to the school would be collected from information available through the Missouri Department of Elementary and Secondary Education (DESE).
- If you are a PBS school, an additional activity might be conducted in your school. Your PBS team might be asked to participate in an interview (taking approximately 20 minutes) related to how implementation of PBS has impacted your school.
- Personnel employed by your district conducted the SET 2.0 in your building earlier this year. Access to the results of the SET would be requested.

Confidentiality is assured during all phases of the project. Names of participants or schools will not appear on any collected data. In addition, you are free to request that data not be collected by University staff. There are no anticipated risks associated with participating in the project. However, staff members, students, and principals are free to withdraw from the study at any time without consequences in any manner from any source. If you have questions related to the instruments to be used for data collection, the survey, or the SET, or would like the opportunity to review them prior to their use in your building, please contact Mary Richter at the email address or phone number listed below. The benefits of

participating include improving what we know about providing effective supports for school staff, and making best practice research-based decisions about the strategies we use in our schools.

If you have any questions or would like further information please contact: Mary Richter, University of Missouri-Columbia: marymrichter@sbcglobal.net, or by phone at 573-564-3760. You may also contact the University of Missouri project supervisor, Dr. Tim Lewis, at LewisTJ@missouri.edu or by phone at 573-882-3742.
If you have questions concerning your rights as a research subject contact: Research Compliance Office, University of Missouri-Columbia at umcresearchcirb@missouri.edu or by phone at (573-882-9585).

I give my permission for my school to participate in the above described project. I further understand that allowing observation by University staff is voluntary and that I may request data collection to cease at any time.

_____ _____

(Signature) (Date)

Please keep a copy for your records and return the signed original to Mary Richter.

Appendix C: Superintendent Introductory Letter and Consent

March 5, 2006

Dear _____,

A school in your district, _____ Elementary School, has been selected to participate in a project designed to gather information about effective schools and Positive Behavior Support (PBS). The study has been approved by the University of Missouri-Columbia Institutional Review Board. The purpose of the project is to identify factors that impact administrators and teachers on a day-to-day basis in schools, and to investigate if PBS assists school personnel in establishing the kind of educational environment they would like to have. To specifically examine PBS, a balance of representative schools that do and do not currently implement PBS is needed. Your school was selected based on the number of students enrolled, the percentage of students receiving free/reduced lunch, and if the school does or does not participate in PBS at this time.

Should you agree to allow _____ Elementary School to participate in the project, the following activities would be included:

- Teachers and administrators would complete a survey that would take no longer than 30 minutes.
- Demographic data related to free/reduced lunch participants, numbers of students in special education services, discipline reports, MAP results, and numbers of students, teachers, and administrators assigned to the school would be collected.
- If it is a PBS school, two additional activities would be conducted. First, the PBS team would be asked to participate in an interview (taking approximately 30 minutes) related to how PBS has impacted your school. Second, observations in the school of factors associated with PBS would be conducted by 1 – 3 University graduate students, using an instrument called the SET 2.0. Classroom learning would not be disturbed. Adults and students within the school would be asked to orally answer questions taking approximately 3-5 minutes to complete. Participation is voluntary.

Confidentiality is assured during all phases of the project. Names of participants will not appear on and collected data. In addition, you are free to request that data not be collected by University staff. There are no anticipated risks associated with participating in project. However, staff members, students, and principals are free to withdraw from the study at any time without consequences in any manner from any source. If you have questions related to the instruments to be used for data collection, the survey, or the SET, or would like the opportunity to review them prior to their use in your building, please contact Mary

Richter at the email address or phone number listed below. The benefits of participating include improving what we know about providing effective supports for school staff, and making best practice research-based decisions about strategies we use in our schools.

If you have any questions or would like further information please contact: Mary Richter, University of Missouri-Columbia: marymrichter@sbcglobal.net, or by phone at 573-441-1870. You may also contact the University of Missouri project supervisor, Dr. Tim Lewis, at LewisTJ@missouri.edu or by phone at 573-882-3742.
If you have questions concerning your rights as a research subject contact: Research Compliance Office, University of Missouri-Columbia at umcresearchcirb@missouri.edu or by phone at (573-882-9585).

I give my permission for my school to participate in the above described project. I further understand that allowing observation by University staff is voluntary and that I may request data collection to cease at any time.

_____ _____

(Signature) (Date)

Please keep a copy for your records and return the signed original to Mary Richter in the enclosed envelope.

Appendix D: Teacher Written Consent Form

March 5, 2006

Dear Teacher,

You have been selected to participate in a project designed to gather information about effective schools and Positive Behavior Support (PBS). The study has been approved by the University of Missouri-Columbia Institutional Review Board. The primary purpose of the project is to identify factors that impact administrators and teachers on a day-to-day basis in schools and to investigate if PBS assists school personnel in establishing the kind of educational environment they would like to have. To specifically examine PBS, a balance of representative schools that do and do not currently implement PBS is needed.

Should you agree to participate, you would be asked to complete the following activities:

- You would answer a questionnaire that would take approximately 20-30 minutes to complete.
- If you are in a PBS school, you would be asked to answer a set of oral questions during non-instructional time within the school day, taking approximately 3-5 minutes to complete.
- If you are in a PBS school and are a member of the PBS leadership team, you will be asked to participate in a focus group interview with your team members. The interview would take approximately 45 minutes and would take place at a special meeting called by the PBS team coordinator.

Confidentiality is assured during all phases of the project. Names of participants will not appear on any collected data. In addition, you are free to request that data not be collected by University staff. There are no anticipated risks associated with participating in the project. However, you are free to decide not to participate in the project or to withdraw at any time without consequence to you or your position from any source. The benefits of participating include having the opportunity to include your perspective on improving what we know about providing effective supports for school staff, and making best practice decisions about strategies we use in our schools.

If you have any questions or would like further information please contact Mary Richter at marymrichter@sbcglobal.net or by phone at 573-441-1870. You may also contact the University of Missouri project supervisor, Dr. Tim Lewis, at LewisTJ@missouri.edu or by phone at 573-882-3742. If you have questions concerning your rights as a research subject contact: Research Compliance Office, University of Missouri-Columbia at umcresearchcirb@missouri.edu or by phone at 573-882-9585.

I give my permission to be included in this project as described above. I further understand that allowing observation by University staff is voluntary and that I may request to withdraw at any time.

_____ _____

(Signature) (Date)

Please keep a copy of this letter for your records and return the signed original to Mary Richter in the enclosed envelope.

Appendix E: Principal Written Consent Form

March 5, 2006

Dear Principal,

You have been selected to participate in a project designed to gather information about effective schools and Positive Behavior Support (PBS). The study has been approved by the University of Missouri-Columbia Institutional Review Board. The primary purpose of the project is to identify factors that impact administrators and teachers on a day-to-day basis in schools and to investigate if PBS assists school personnel in establishing the kind of educational environment they would like to have. To specifically examine PBS, a balance of representative schools that do and do not currently implement PBS is needed.

Should you agree to participate, you would be asked to complete the following activities:

- You would answer a questionnaire that would take approximately 20-30 minutes to complete.
- If you are in a PBS school, you would be asked to answer a set of oral questions during non-instructional time within the school day, taking approximately 15 minutes to complete.

Confidentiality is assured during all phases of the project. Names of participants will not appear on any collected data. In addition, you are free to request that data not be collected by University staff. There are no anticipated risks associated with participating in the project. However, you are free to decide not to participate or to withdraw from the project at any time without consequence from any source. The benefits of participating include having the opportunity to include your perspective on improving what we know about providing effective supports for school staff, and making best practice research-based decisions about strategies we use in our schools.

If you have any questions or would like further information please contact Mary Richter at marymrichter@sbcglobal.net or by phone at 573-441-1870. You may also contact the University of Missouri project supervisor, Dr. Tim Lewis, at LewisTJ@missouri.edu or by phone at 573-882-3742. If you have questions concerning your rights as a research subject contact: Research Compliance Office, University of Missouri-Columbia at umcresearchcirb@missouri.edu or by phone at 573-882-9585.

I give my permission to be included in this project as described above. I further understand that allowing observation by University staff is voluntary and that I may request to withdraw at any time.

_____ _____

(Signature) (Date)

Please keep a copy of this letter for your records and return the signed original to Mary Richter in the enclosed envelope.

Appendix F: Teacher Instructions Letter

March 5, 2006

Dear Teacher,

Thank you for taking the time to complete the attached information, particularly at such a busy time of year. I am requesting that you participate because I believe the information will be of real value. My hope is that it will help us develop better and more useful trainings for teachers and principals.

There are 2 documents:

- A permission form - please sign and return to your school secretary. This form will be kept in a separate manila envelope.
- A questionnaire – please fill this out, fold, and seal in the white envelope. Then return to your school secretary. These will be kept in a separate box.

All individual and school information is confidential, and will only be reported by a number code. I am required to have separate signed permission forms on file for the University of Missouri Institutional Review Board to verify that the number of permission forms match the number of questionnaires collected.

Mary Richter
University of Missouri-Columbia

Appendix G - Focus Interview Questions

1. What, if any, factors related to implementing SW-PBS have increased teacher job satisfaction in your school?

2. What, if any, factors related to implementing SW-PBS have improved student behavior in your school?

3. Do you find these have also been associated with improved behavior in students who are considered to be at-risk for or already have been identified through special education for emotional or behavioral disorders?

4. What, if any, changes in your principal's leadership style do you believe might be associated with implementing SW-PBS?

5. Are there other changes in your principal you believe might be associated with implementing SW-PBS?

6. Are there other questions you would suggest including in the questionnaire?

Appendix H

Table of Descriptive Statistics, All Participants Questionnaire A and B Scales

Table B.i

Descriptive Statistics for All Respondents Disaggregated by PBS Status and Position

Case Summaries "A" Items	PBS CODE	POSITION CODE	N	Mean	SD	Kurt.	Skew.
Item 01a Leads in establishing school vision.	PBS_NOT	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	274	4.6825	0.5785	7.2645	-2.2331
		Total	289	4.6817	0.5735	7.0946	-2.1918
	PBS	PRINCIPAL	15	4.8667	0.3519	4.3491	-2.4048
		OTHER STAFF	415	4.7325	0.5413	14.9392	-3.0255
		Total	430	4.7372	0.5361	15.1096	-3.0394
	Total	PRINCIPAL	30	4.7667	0.4302	-0.2573	-1.3283
		OTHER STAFF	689	4.7126	0.5565	11.3002	-2.6716
		Total	719	4.7149	0.5517	11.2572	-2.6563
Item 02a Leads in establishing goals to implement vision.	PBS_NOT	PRINCIPAL	15	4.7333	0.4577	-0.7343	-1.1764
		OTHER STAFF	274	4.6350	0.5852	5.1030	-1.8096
		Total	289	4.6401	0.5791	5.0961	-1.8055
	PBS	PRINCIPAL	15	4.8667	0.3519	4.3491	-2.4048
		OTHER STAFF	414	4.6667	0.5946	10.0445	-2.5081
		Total	429	4.6737	0.5887	10.2257	-2.5304
	Total	PRINCIPAL	30	4.8000	0.4068	0.5274	-1.5801

		OTHER STAFF	688	4.6541	0.5906	8.0442	-2.2302
		Total	718	4.6602	0.5846	8.1301	-2.2393
Item 03a Encourages staff input/participation to prioritize goals.	PBS_NOT	PRINCIPAL	15	4.5333	0.5164	-2.3077	-0.1490
		OTHER STAFF	273	4.6703	0.5699	7.2403	-2.1386
		Total	288	4.6632	0.5672	6.8244	-2.0518
	PBS	PRINCIPAL	15	4.9333	0.2582	15.0000	-3.8730
		OTHER STAFF	416	4.6490	0.6107	8.3097	-2.3080
		Total	431	4.6589	0.6040	8.5620	-2.3477
	Total	PRINCIPAL	30	4.7333	0.4498	-0.8239	-1.1117
		OTHER STAFF	689	4.6575	0.5945	7.9594	-2.2508
		Total	719	4.6606	0.5891	7.9560	-2.2418
Item 04a Works toward staff consensus on school-wide issues/goals.	PBS_NOT	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	273	4.5531	0.6899	4.7409	-1.8499
		Total	288	4.5590	0.6807	4.8135	-1.8504
	PBS	PRINCIPAL	15	4.8000	0.4140	0.8974	-1.6721
		OTHER STAFF	415	4.5614	0.6706	5.4388	-1.9158
		Total	430	4.5698	0.6645	5.5518	-1.9342
	Total	PRINCIPAL	30	4.7333	0.4498	-0.8239	-1.1117
		OTHER STAFF	688	4.5581	0.6779	5.1037	-1.8850

		Total	718	4.5655	0.6706	5.1986	-1.8959
Item 05a Models/uses problem-solving to help staff reach consensus.	PBS_NOT	PRINCIPAL	15	4.6000	0.5071	-2.0940	-0.4551
		OTHER STAFF	273	4.4945	0.6758	2.7751	-1.4196
		Total	288	4.5000	0.6678	2.7996	-1.4136
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	413	4.5400	0.6584	4.9286	-1.7375
		Total	428	4.5444	0.6531	4.9541	-1.7358
	Total	PRINCIPAL	30	4.6333	0.4901	-1.7840	-0.5829
		OTHER STAFF	686	4.5219	0.6653	3.9651	-1.6019
		Total	716	4.5265	0.6590	3.9879	-1.5976
Item 06a Uses data to help staff prioritize goals.	PBS_NOT	PRINCIPAL	15	4.6000	0.6325	1.2637	-1.4074
		OTHER STAFF	273	4.3993	0.7109	1.5674	-1.1239
		Total	288	4.4097	0.7075	1.5505	-1.1333
	PBS	PRINCIPAL	15	4.8667	0.3519	4.3491	-2.4048
		OTHER STAFF	412	4.4393	0.7105	2.9873	-1.4000
		Total	427	4.4543	0.7052	3.0830	-1.4311
	Total	PRINCIPAL	30	4.7333	0.5208	2.9337	-1.8665
		OTHER STAFF	685	4.4234	0.7104	2.3783	-1.2858
		Total	715	4.4364	0.7060	2.4159	-1.3063

Item 07a Maintains high performance expectations for all staff.	PBS_NOT	PRINCIPAL	15	5.0000	0.0000	.	.
		OTHER STAFF	274	4.8321	0.4852	19.9392	-3.8864
		Total	289	4.8408	0.4739	21.1739	-4.0064
	PBS	PRINCIPAL	15	4.8667	0.3519	4.3491	-2.4048
		OTHER STAFF	413	4.7942	0.5249	19.6659	-3.7329
		Total	428	4.7967	0.5197	19.8493	-3.7401
	Total	PRINCIPAL	30	4.9333	0.2537	12.2066	-3.6600
		OTHER STAFF	687	4.8093	0.5094	19.7425	-3.7867
		Total	717	4.8145	0.5019	20.3042	-3.8348
Item 08a Encourages/supports staff to self-evaluate goals progress.	PBS_NOT	PRINCIPAL	15	4.6000	0.6325	1.2637	-1.4074
		OTHER STAFF	273	4.5128	0.6423	2.5267	-1.3062
		Total	288	4.5174	0.6410	2.4400	-1.3043
	PBS	PRINCIPAL	15	4.5333	0.6399	0.3975	-1.0846
		OTHER STAFF	413	4.5061	0.6954	4.1327	-1.6754
		Total	428	4.5070	0.6929	4.0518	-1.6594
	Total	PRINCIPAL	30	4.5667	0.6261	0.4307	-1.1717
		OTHER STAFF	686	4.5087	0.6743	3.6270	-1.5505

		Total	716	4.5112	0.6720	3.5384	-1.5380
Item 09a Provides prof. dev. activities to support goals.	PBS_NOT	PRINCIPAL	14	4.6429	0.6333	2.2137	-1.6871
		OTHER STAFF	271	4.6199	0.6663	5.4777	-2.1127
		Total	285	4.6211	0.6636	5.3340	-2.0905
	PBS	PRINCIPAL	15	4.6667	0.6172	2.6250	-1.7916
		OTHER STAFF	407	4.5897	0.6442	6.4864	-2.0324
		Total	422	4.5924	0.6427	6.3630	-2.0210
	Total	PRINCIPAL	29	4.6552	0.6139	1.7651	-1.6408
		OTHER STAFF	678	4.6018	0.6528	5.9881	-2.0587
		Total	707	4.6040	0.6509	5.8585	-2.0434
Item 10a Actively models skills that support school-wide goals.	PBS_NOT	PRINCIPAL	15	4.5333	0.5164	-2.3077	-0.1490
		OTHER STAFF	273	4.5861	0.6480	4.3265	-1.7936
		Total	288	4.5833	0.6412	4.2288	-1.7523
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	411	4.6131	0.6315	5.6656	-1.9804
		Total	426	4.6150	0.6266	5.6575	-1.9697
	Total	PRINCIPAL	30	4.6000	0.4983	-1.9500	-0.4301
		OTHER STAFF	684	4.6023	0.6378	5.0521	-1.8990
		Total	714	4.6022	0.6323	5.0007	-1.8748

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Item 11a Establishes leadership teams to guide impl. goals.	PBS_NOT	PRINCIPAL	15	4.5333	0.7432	0.4706	1.3348
		OTHER STAFF	273	4.4982	0.7025	3.4619	- 1.5636
		Total	288	4.5000	0.7034	3.2616	- 1.5425
	PBS	PRINCIPAL	15	4.8667	0.3519	4.3491	- 2.4048
		OTHER STAFF	411	4.5718	0.6489	6.3601	- 1.9910
		Total	426	4.5822	0.6428	6.5099	- 2.0182
	Total	PRINCIPAL	30	4.7000	0.5960	2.7461	- 1.9060
		OTHER STAFF	684	4.5424	0.6713	4.9544	- 1.8008
		Total	714	4.5490	0.6687	4.8988	- 1.8028
Item 12a Provides and enforces clear school-wide systems.	PBS_NOT	PRINCIPAL	15	4.6667	0.4880	- 1.6154	- 0.7882
		OTHER STAFF	270	4.5481	0.6922	3.0261	- 1.6308
		Total	285	4.5544	0.6828	3.0962	- 1.6349
	PBS	PRINCIPAL	15	4.9333	0.2582	15.000 0	- 3.8730
		OTHER STAFF	411	4.7105	0.5938	9.1764	- 2.6165
		Total	426	4.7183	0.5865	9.4826	- 2.6590
	Total	PRINCIPAL	30	4.8000	0.4068	0.5274	- 1.5801
		OTHER	681	4.6461	0.6391	5.7803	-

		STAFF					2.1360
		Total	711	4.6526	0.6316	5.9147	-2.1534
Item 13a Provides and enforces clear school-wide practices.	PBS_NOT	PRINCIPAL	15	4.4667	0.5164	-2.3077	0.1490
		OTHER STAFF	273	4.6264	0.6239	5.5497	-1.9985
		Total	288	4.6181	0.6191	5.2804	-1.9216
	PBS	PRINCIPAL	15	4.8000	0.4140	0.8974	-1.6721
		OTHER STAFF	408	4.7206	0.5868	9.8513	-2.7081
		Total	423	4.7234	0.5814	9.9291	-2.7102
	Total	PRINCIPAL	30	4.6333	0.4901	-1.7840	-0.5829
		OTHER STAFF	681	4.6828	0.6033	7.7122	-2.3831
		Total	711	4.6807	0.5987	7.5670	-2.3431
Item 14a Monitors/modifies systems and practices as needed.	PBS_NOT	PRINCIPAL	15	4.4000	0.6325	-0.3846	-0.5473
		OTHER STAFF	273	4.5604	0.6621	3.2001	-1.6018
		Total	288	4.5521	0.6605	2.9753	-1.5445
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	411	4.6326	0.6079	6.7489	-2.0903
		Total	426	4.6338	0.6037	6.7030	-2.0734
	Total	PRINCIPAL	30	4.5333	0.5713	-0.4294	-0.7325
		OTHER STAFF	684	4.6038	0.6306	5.0162	-1.8712
		Total	714	4.6008	0.6280	4.8471	-

							1.8327
Item 15a Keeps staff up-to-date on mods. to systems/practices.	PBS_NOT	PRINCIPAL	15	4.6667	0.4880	1.6154	-0.7882
		OTHER STAFF	273	4.6484	0.6191	5.3960	-2.0318
		Total	288	4.6493	0.6122	5.3485	-2.0089
	PBS	PRINCIPAL	15	4.5333	0.6399	0.3975	-1.0846
		OTHER STAFF	410	4.6902	0.5759	9.3883	-2.4791
		Total	425	4.6847	0.5782	8.8635	-2.4101
	Total	PRINCIPAL	30	4.6000	0.5632	0.1762	-1.0421
		OTHER STAFF	683	4.6735	0.5935	7.4878	-2.2794
		Total	713	4.6704	0.5920	7.2095	-2.2314
Item 16a Anticipates problems and effectively responds to them.	PBS_NOT	PRINCIPAL	15	4.5333	0.6399	0.3975	-1.0846
		OTHER STAFF	272	4.6397	0.6215	5.1881	-1.9835
		Total	287	4.6341	0.6218	4.8616	-1.9268
	PBS	PRINCIPAL	15	4.6000	0.6325	1.2637	-1.4074
		OTHER STAFF	411	4.6569	0.6259	10.1091	-2.5896
		Total	426	4.6549	0.6255	9.7732	-2.5443
	Total	PRINCIPAL	30	4.5667	0.6261	0.4307	-1.1717
		OTHER STAFF	683	4.6501	0.6238	8.1043	-2.3457
		Total	713	4.6466	0.6237	7.7451	-2.2928

Item 17a Assures school compliance with government regulations.	PBS_NOT	PRINCIPAL	15	4.7333	0.4577	-0.7343	-1.1764
		OTHER STAFF	274	4.8102	0.4847	-16.0421	-3.3580
		Total	289	4.8062	0.4829	-15.3068	-3.2567
	PBS	PRINCIPAL	15	4.6667	0.6172	-2.6250	-1.7916
		OTHER STAFF	410	4.7268	0.6243	-12.0909	-3.0598
		Total	425	4.7247	0.6234	-11.7446	-3.0125
	Total	PRINCIPAL	30	4.7000	0.5350	-1.9505	-1.6215
		OTHER STAFF	684	4.7602	0.5735	-13.7508	-3.2140
		Total	714	4.7577	0.5718	-13.3450	-3.1561
Item 18a Promotes staff cohesion and cooperation.	PBS_NOT	PRINCIPAL	15	4.7333	0.5936	-4.7848	-2.2730
		OTHER STAFF	274	4.7664	0.5711	-15.4501	-3.4088
		Total	289	4.7647	0.5713	-14.7557	-3.3354
	PBS	PRINCIPAL	15	4.7333	0.4577	-0.7343	-1.1764
		OTHER STAFF	408	4.7721	0.5425	-14.4424	-3.2506
		Total	423	4.7707	0.5393	-14.2247	-3.2089
	Total	PRINCIPAL	30	4.7333	0.5208	-2.9337	-1.8665
		OTHER STAFF	682	4.7698	0.5538	-14.8235	-3.3162
		Total	712	4.7683	0.5522	-14.4162	-3.2630
Item 19a Provides staff with	PBS_NOT	PRINCIPAL	15	4.8000	0.4140	-0.8974	-1.6721

materials/resources/planning times.							
		OTHER STAFF	272	4.8162	0.4737	17.4020	-3.4546
		Total	287	4.8153	0.4701	16.9763	-3.3944
	PBS	PRINCIPAL	15	4.9333	0.2582	15.0000	-3.8730
		OTHER STAFF	411	4.7567	0.5403	12.9124	-2.9956
		Total	426	4.7629	0.5337	13.2652	-3.0360
	Total	PRINCIPAL	30	4.8667	0.3457	3.3860	-2.2725
		OTHER STAFF	683	4.7804	0.5152	14.3272	-3.1551
		Total	713	4.7840	0.5094	14.4929	-3.1663
Item 20a Exposes staff to research and rationale for beh. mgmt..	PBS_NOT	PRINCIPAL	15	4.4000	0.8281	-0.7853	-0.9405
		OTHER STAFF	273	4.4176	0.7386	2.4208	-1.3398
		Total	288	4.4167	0.7420	2.1880	-1.3085
	PBS	PRINCIPAL	15	4.3333	0.7237	-0.6542	-0.6280
		OTHER STAFF	410	4.4293	0.7207	2.7195	-1.3653
		Total	425	4.4259	0.7202	2.5878	-1.3373
	Total	PRINCIPAL	30	4.3667	0.7649	-0.8365	-0.7548
		OTHER STAFF	683	4.4246	0.7274	2.5692	-1.3523
		Total	713	4.4222	0.7286	2.3949	-1.3231
Item 21a Includes staff in decision-making about beh.	PBS_NOT	PRINCIPAL	15	4.4667	0.5164	-2.3077	-0.1490

mgmt. issues.							
		OTHER STAFF	273	4.5495	0.7112	4.5181	-1.8744
		Total	288	4.5451	0.7019	4.4707	-1.8354
	PBS	PRINCIPAL	15	4.7333	0.4577	-0.7343	-1.1764
		OTHER STAFF	410	4.6390	0.6458	7.6200	-2.3353
		Total	425	4.6424	0.6399	7.6809	-2.3351
	Total	PRINCIPAL	30	4.6000	0.4983	-1.9500	-0.4301
		OTHER STAFF	683	4.6032	0.6736	6.0838	-2.1262
		Total	713	4.6031	0.6669	6.0670	-2.1051
Item 22a Established leadership team to guide beh. mgmt. system.	PBS_NOT	PRINCIPAL	15	4.0000	1.1952	1.1846	-1.1585
		OTHER STAFF	270	4.3630	0.8675	1.9020	-1.4305
		Total	285	4.3439	0.8887	1.9038	-1.4296
	PBS	PRINCIPAL	15	4.8000	0.4140	0.8974	-1.6721
		OTHER STAFF	411	4.6764	0.6207	11.8137	-2.8464
		Total	426	4.6808	0.6147	11.9457	-2.8535
	Total	PRINCIPAL	30	4.4000	0.9685	3.9735	-1.8937
		OTHER STAFF	681	4.5521	0.7440	5.3841	-2.0919
		Total	711	4.5457	0.7546	5.3184	-2.0888
Item 23a Publicly supports the leadership	PBS_NOT	PRINCIPAL	15	4.4000	0.6325	-0.3846	-0.5473

team's efforts.							
		OTHER STAFF	271	4.5129	0.8067	3.7303	-1.8759
		Total	286	4.5070	0.7980	3.6508	-1.8379
	PBS	PRINCIPAL	15	4.9333	0.2582	15.0000	-3.8730
		OTHER STAFF	412	4.6650	0.6614	8.8922	-2.6019
		Total	427	4.6745	0.6532	9.2124	-2.6470
	Total	PRINCIPAL	30	4.6667	0.5467	1.2012	-1.4071
		OTHER STAFF	683	4.6047	0.7258	6.1292	-2.2606
		Total	713	4.6073	0.7190	6.1551	-2.2558
Item 24a Is an active participant on the leadership team.	PBS_NOT	PRINCIPAL	15	4.4667	0.6399	-0.1267	-0.8023
		OTHER STAFF	270	4.5556	0.7728	6.1590	-2.2562
		Total	285	4.5509	0.7657	6.0087	-2.2102
	PBS	PRINCIPAL	15	4.7333	0.7037	4.3491	-2.4048
		OTHER STAFF	412	4.6917	0.6797	10.5819	-2.9388
		Total	427	4.6932	0.6797	10.3023	-2.9106
	Total	PRINCIPAL	30	4.6000	0.6747	0.9574	-1.4726
		OTHER STAFF	682	4.6378	0.7205	8.3008	-2.6161
		Total	712	4.6362	0.7182	8.0575	-2.5750
Item 25a Support leadership team formulating beh.	PBS_NOT	PRINCIPAL	15	4.2667	0.9612	-1.7761	-0.6155

mgmt. action plan.							
		OTHER STAFF	269	4.4684	0.8126	3.0243	-1.6836
		Total	284	4.4577	0.8204	2.5891	-1.6034
	PBS	PRINCIPAL	15	4.6667	0.6172	2.6250	-1.7916
		OTHER STAFF	409	4.6870	0.5815	9.0701	-2.4551
		Total	424	4.6863	0.5820	8.7658	-2.4228
	Total	PRINCIPAL	30	4.4667	0.8193	-0.5534	-1.0951
		OTHER STAFF	678	4.6003	0.6904	5.7224	-2.1195
		Total	708	4.5946	0.6962	5.2517	-2.0562
Item 26a Provides resources to implement beh. mgmt. plan.	PBS_NOT	PRINCIPAL	15	4.0000	0.9258	-1.9744	0.0000
		OTHER STAFF	269	4.4721	0.8035	4.1112	-1.8433
		Total	284	4.4472	0.8155	3.3569	-1.6987
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	410	4.6000	0.6378	5.6843	-1.9701
		Total	425	4.6024	0.6328	5.6851	-1.9610
	Total	PRINCIPAL	30	4.3333	0.8023	-1.0621	-0.6995
		OTHER STAFF	679	4.5493	0.7103	5.2083	-1.9702
		Total	709	4.5402	0.7152	4.7446	-1.8959
Item 27a Supports/recognizes staff who implement beh.	PBS_NOT	PRINCIPAL	15	4.2667	0.7988	-1.1317	-0.5548

mgmt. plan.							
		OTHER STAFF	271	4.4613	0.7682	4.7381	-1.8442
		Total	286	4.4510	0.7696	4.3204	-1.7647
	PBS	PRINCIPAL	15	4.5333	0.6399	0.3975	-1.0846
		OTHER STAFF	411	4.5280	0.7198	4.0024	-1.7742
		Total	426	4.5282	0.7165	3.9377	-1.7577
	Total	PRINCIPAL	30	4.4000	0.7240	-0.6049	-0.7945
		OTHER STAFF	682	4.5015	0.7396	4.3471	-1.8071
		Total	712	4.4972	0.7387	4.1310	-1.7642
Item 28a Supports/recognizes students improved beh./social skills.	PBS_NOT	PRINCIPAL	15	4.6000	0.5071	-2.0940	-0.4551
		OTHER STAFF	270	4.6963	0.6191	10.0893	-2.7230
		Total	285	4.6912	0.6133	9.8050	-2.6538
	PBS	PRINCIPAL	15	4.8000	0.4140	0.8974	-1.6721
		OTHER STAFF	412	4.6990	0.6330	9.4885	-2.7192
		Total	427	4.7026	0.6265	9.6221	-2.7286
	Total	PRINCIPAL	30	4.7000	0.4661	-1.2421	-0.9195
		OTHER STAFF	682	4.6979	0.6271	9.6393	-2.7150
		Total	712	4.6980	0.6209	9.6158	-2.6938

Item 29a Informs stakeholders about meeting beh. mgmt. goals.	PBS_NOT	PRINCIPAL	15	4.2000	0.8619	-1.5453	-0.4325
		OTHER STAFF	273	4.4652	0.7668	3.5103	-1.6568
		Total	288	4.4514	0.7726	3.0534	-1.5709
	PBS	PRINCIPAL	15	4.5333	0.6399	0.3975	-1.0846
		OTHER STAFF	412	4.5388	0.6877	3.8823	-1.7190
		Total	427	4.5386	0.6854	3.7949	-1.7002
	Total	PRINCIPAL	30	4.3667	0.7649	-0.8365	-0.7548
		OTHER STAFF	685	4.5095	0.7206	3.7641	-1.7025
		Total	715	4.5035	0.7225	3.4958	-1.6543
Item 30a Maintains beh. mgmt. standards/systems/practices.	PBS_NOT	PRINCIPAL	15	4.3333	0.8165	-1.0220	-0.7402
		OTHER STAFF	272	4.5882	0.7029	5.2573	-2.0514
		Total	287	4.5749	0.7099	4.6360	-1.9499
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	410	4.6902	0.5717	8.9196	-2.4016
		Total	425	4.6894	0.5684	8.7698	-2.3689
	Total	PRINCIPAL	30	4.5000	0.6823	-0.0341	-1.0469
		OTHER STAFF	682	4.6496	0.6288	7.1465	-2.2665
		Total	712	4.6433	0.6313	6.6849	-2.1994

Item 31a Ensures all staff know/follow beh. mgmt. practices.	PBS_NOT	PRINCIPAL	15	4.4000	0.7368	-0.4698	-0.8407
		OTHER STAFF	272	4.6360	0.6898	8.1587	-2.5032
		Total	287	4.6237	0.6930	7.4310	-2.3870
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	411	4.7178	0.5952	9.3321	-2.6704
		Total	426	4.7160	0.5914	9.1990	-2.6358
	Total	PRINCIPAL	30	4.5333	0.6288	0.1134	-1.0250
		OTHER STAFF	683	4.6852	0.6354	8.9209	-2.6126
		Total	713	4.6788	0.6354	8.4705	-2.5389

Case Summaries - "B" Items

	PBS CODE	POSITION CODE	N	Mean	SD	Kurt.	Skew.
Item 01b Leads in establishing school vision.	PBS_NOT	PRINCIPAL	15	4.0667	0.5936	0.5369	0.0035
		OTHER STAFF	278	4.1223	0.9459	0.6353	-0.9686
		Total	293	4.1195	0.9305	0.6919	-0.9592
	PBS	PRINCIPAL	15	4.2000	0.6761	-0.5048	-0.2560
		OTHER STAFF	414	4.2198	0.8650	1.3242	-1.1623
		Total	429	4.2191	0.8584	1.3233	-1.1497
	Total	PRINCIPAL	30	4.1333	0.6288	-0.3207	-0.0977
		OTHER	692	4.1806	0.8990	1.0067	-

		STAFF					1.0822
		Total	722	4.1787	0.8891	1.0282	-1.0698
Item 02b Leads in establishing goals to implement vision.	PBS_NOT	PRINCIPAL	15	4.2000	0.5606	0.3783	0.1123
		OTHER STAFF	277	4.0289	0.9664	0.0341	-0.7616
		Total	292	4.0377	0.9499	0.1302	-0.7778
	PBS	PRINCIPAL	15	4.2667	0.7037	-0.6691	0.4330
		OTHER STAFF	412	4.1820	0.8787	1.1911	-1.0983
		Total	427	4.1850	0.8726	1.1981	-1.0923
	Total	PRINCIPAL	30	4.2333	0.6261	-0.4528	0.2014
		OTHER STAFF	689	4.1205	0.9174	0.6180	-0.9544
		Total	719	4.1252	0.9071	0.6686	-0.9568
Item 03b Encourages staff input/participation to prioritize goals.	PBS_NOT	PRINCIPAL	15	4.4000	0.6325	-0.3846	0.5473
		OTHER STAFF	274	4.0839	1.0183	0.4770	-1.0290
		Total	289	4.1003	1.0036	0.5807	-1.0536
	PBS	PRINCIPAL	15	4.4000	0.6325	-0.3846	0.5473
		OTHER STAFF	414	4.1135	0.9512	1.7709	-1.2634
		Total	429	4.1235	0.9428	1.8392	-1.2739
	Total	PRINCIPAL	30	4.4000	0.6215	-0.5343	0.5172
		OTHER STAFF	688	4.1017	0.9778	1.1718	-1.1605

		Total	718	4.1142	0.9671	1.2556	-1.1763
Item 04b Works toward staff consensus on school-wide issues/goals.	PBS_NOT	PRINCIPAL	15	4.3333	0.4880	-1.6154	0.7882
		OTHER STAFF	278	3.8741	1.1218	-0.0808	-0.8005
		Total	293	3.8976	1.1025	0.0567	-0.8457
	PBS	PRINCIPAL	15	4.2667	0.8837	1.8210	-1.3174
		OTHER STAFF	414	3.9155	1.0275	0.2967	-0.8392
		Total	429	3.9277	1.0240	0.3159	-0.8517
	Total	PRINCIPAL	30	4.3000	0.7022	2.5682	-1.1395
		OTHER STAFF	692	3.8988	1.0658	0.1331	-0.8261
		Total	722	3.9155	1.0559	0.2042	-0.8516
Item 05b Models/uses problem-solving to help staff reach consensus.	PBS_NOT	PRINCIPAL	15	4.0667	0.9612	-2.0851	-0.1477
		OTHER STAFF	276	3.7790	1.0643	0.0781	-0.6972
		Total	291	3.7938	1.0597	0.0552	-0.6829
	PBS	PRINCIPAL	15	4.0667	0.7988	-1.3477	-0.1279
		OTHER STAFF	413	3.8620	1.0441	0.1579	-0.7885
		Total	428	3.8692	1.0364	0.1807	-0.7883
	Total	PRINCIPAL	30	4.0667	0.8683	-1.6920	-0.1344
		OTHER STAFF	689	3.8287	1.0523	0.1117	-0.7496
		Total	719	3.8387	1.0458	0.1151	-

							0.7435
Item 06b Uses data to help staff prioritize goals.	PBS_NOT	PRINCIPAL	15	4.1333	0.8338	-1.4990	-0.2742
		OTHER STAFF	276	3.9312	1.0748	0.4258	-0.9419
		Total	291	3.9416	1.0635	0.4531	-0.9394
	PBS	PRINCIPAL	15	4.2667	0.7988	-1.1317	-0.5548
		OTHER STAFF	410	4.1220	0.9116	0.6373	-0.9246
		Total	425	4.1271	0.9074	0.6245	-0.9195
	Total	PRINCIPAL	30	4.2000	0.8052	-1.3331	-0.3907
		OTHER STAFF	686	4.0452	0.9843	0.6833	-0.9751
		Total	716	4.0517	0.9774	0.6826	-0.9687
Item 07b Maintains high performance expectations for all staff.	PBS_NOT	PRINCIPAL	15	4.7333	0.5936	4.7848	-2.2730
		OTHER STAFF	277	4.1588	1.0268	1.1298	-1.2735
		Total	292	4.1884	1.0164	1.2517	-1.3142
	PBS	PRINCIPAL	15	4.4000	0.6325	-0.3846	-0.5473
		OTHER STAFF	413	4.2421	0.9448	1.6129	-1.3332
		Total	428	4.2477	0.9356	1.6744	-1.3395
	Total	PRINCIPAL	30	4.5667	0.6261	0.4307	-1.1717
		OTHER STAFF	690	4.2087	0.9787	1.4073	-1.3128
		Total	720	4.2236	0.9689	1.4951	-1.3337

Item 08b Encourages/supports staff to self-evaluate goals progress.	PBS_NOT	PRINCIPAL	15	4.1333	0.7432	-0.9700	-0.2266
		OTHER STAFF	277	3.9928	1.0286	-0.4076	-0.9313
		Total	292	4.0000	1.0153	-0.4544	-0.9322
	PBS	PRINCIPAL	15	4.1333	0.8338	-1.4990	-0.2742
		OTHER STAFF	414	4.0435	0.9608	-0.8436	-0.9925
		Total	429	4.0466	0.9559	-0.8242	-0.9803
	Total	PRINCIPAL	30	4.1333	0.7761	-1.2608	-0.2417
		OTHER STAFF	691	4.0232	0.9881	-0.6488	-0.9686
		Total	721	4.0277	0.9800	-0.6577	-0.9613
Item 09b Provides prof. dev. activities to support goals.	PBS_NOT	PRINCIPAL	15	4.3333	0.8165	-1.0220	-0.7402
		OTHER STAFF	273	4.1319	1.0241	-0.5604	-1.0948
		Total	288	4.1424	1.0141	-0.5831	-1.0963
	PBS	PRINCIPAL	15	4.4667	0.6399	-0.1267	-0.8023
		OTHER STAFF	406	4.1527	0.8700	-0.9657	-0.9793
		Total	421	4.1639	0.8642	-1.0017	-0.9899
	Total	PRINCIPAL	30	4.4000	0.7240	-0.6049	-0.7945
		OTHER STAFF	679	4.1443	0.9343	-0.8350	-1.0525
		Total	709	4.1551	0.9274	-0.8608	-1.0585
Item 10b Actively models skills that	PBS_NOT	PRINCIPAL	15	4.0667	0.7988	-1.3477	-0.1279

support school-wide goals.							
		OTHER STAFF	275	3.9636	0.9883	0.1466	-0.7494
		Total	290	3.9690	0.9785	0.1540	-0.7409
	PBS	PRINCIPAL	14	4.5000	0.5189	-2.3636	0.0000
		OTHER STAFF	410	4.0073	0.9651	0.4966	-0.9001
		Total	424	4.0236	0.9574	0.5708	-0.9240
	Total	PRINCIPAL	29	4.2759	0.7019	-0.8016	-0.4464
		OTHER STAFF	685	3.9898	0.9740	0.3345	-0.8364
		Total	714	4.0014	0.9658	0.3758	-0.8460
Item 11b Establishes leadership teams to guide implement. of goals.	PBS_NOT	PRINCIPAL	15	4.0667	0.7988	-2.3229	-1.0981
		OTHER STAFF	275	4.0836	1.0128	0.1623	-0.9543
		Total	290	4.0828	1.0018	0.2083	-0.9572
	PBS	PRINCIPAL	15	4.4000	0.7368	-0.4698	-0.8407
		OTHER STAFF	409	4.2249	0.9173	1.1103	-1.1690
		Total	424	4.2311	0.9114	1.1246	-1.1699
	Total	PRINCIPAL	30	4.2333	0.7739	0.9217	-0.9198
		OTHER STAFF	684	4.1681	0.9586	0.6672	-1.0815
		Total	714	4.1709	0.9512	0.6929	-1.0822
Item 12b Provides and enforces clear	PBS_NOT	PRINCIPAL	15	4.2000	0.6761	-0.5048	-0.2560

school-wide systems.							
		OTHER STAFF	274	3.7993	1.0621	-0.2319	-0.6447
		Total	289	3.8201	1.0485	-0.1548	-0.6715
	PBS	PRINCIPAL	15	4.6667	0.4880	-1.6154	-0.7882
		OTHER STAFF	408	4.0833	1.0002	0.7042	-1.0562
		Total	423	4.1040	0.9922	0.7948	-1.0875
	Total	PRINCIPAL	30	4.4333	0.6261	-0.4528	-0.6350
		OTHER STAFF	682	3.9692	1.0342	0.1986	-0.8731
		Total	712	3.9888	1.0243	0.2744	-0.8989
Item 13b Provides and enforces clear school-wide practices.							
	PBS_NOT	PRINCIPAL	15	4.2667	0.7037	-0.6691	-0.4330
		OTHER STAFF	276	3.8297	1.0531	-0.2229	-0.6706
		Total	291	3.8522	1.0416	-0.1553	-0.6961
	PBS	PRINCIPAL	15	4.5333	0.6399	0.3975	-1.0846
		OTHER STAFF	407	4.0467	0.9777	0.3359	-0.9041
		Total	422	4.0640	0.9714	0.3883	-0.9252
	Total	PRINCIPAL	30	4.4000	0.6747	-0.5167	-0.6930
		OTHER STAFF	683	3.9590	1.0137	0.0644	-0.8071
		Total	713	3.9776	1.0054	0.1210	-0.8282
Item 14b Monitors/modifies systems and practices as needed.							
	PBS_NOT	PRINCIPAL	14	4.1429	0.7703	-1.1235	-0.2644

		OTHER STAFF	275	3.8000	1.0533	-0.0157	-0.6682
		Total	289	3.8166	1.0430	-0.0290	-0.6807
	PBS	PRINCIPAL	15	4.2000	0.6761	-0.5048	-0.2560
		OTHER STAFF	408	3.9510	0.9827	-0.1702	-0.7758
		Total	423	3.9598	0.9740	-0.2162	-0.7852
	Total	PRINCIPAL	29	4.1724	0.7106	-0.8938	-0.2632
		OTHER STAFF	683	3.8902	1.0137	-0.0933	-0.7360
		Total	712	3.9017	1.0043	-0.1379	-0.7461
Item 15b Keeps staff up-to-date on mods. to systems/practices.	PBS_NOT	PRINCIPAL	15	4.4000	0.6325	-0.3846	-0.5473
		OTHER STAFF	276	3.8841	1.0926	-0.5109	-0.6442
		Total	291	3.9107	1.0791	-0.4259	-0.6833
	PBS	PRINCIPAL	15	4.2000	0.5606	0.3783	0.1123
		OTHER STAFF	409	4.0807	1.0174	-1.0549	-1.1587
		Total	424	4.0849	1.0047	-1.1424	-1.1689
	Total	PRINCIPAL	30	4.3000	0.5960	-0.4821	-0.1885
		OTHER STAFF	685	4.0015	1.0520	-0.2588	-0.9323
		Total	715	4.0140	1.0384	-0.3496	-0.9538
Item 16b Anticipates problems and effectively responds to them.	PBS_NOT	PRINCIPAL	15	4.1333	0.9155	-1.8607	-0.2931
		OTHER STAFF	274	3.8212	1.1262	-0.3889	-0.6657

		Total	289	3.8374	1.1170	-0.3708	-0.6684
	PBS	PRINCIPAL	15	4.2000	0.8619	-1.5453	-0.4325
		OTHER STAFF	405	3.8889	1.0671	-0.0586	-0.7967
		Total	420	3.9000	1.0611	-0.0726	-0.7989
	Total	PRINCIPAL	30	4.1667	0.8743	-1.6362	-0.3440
		OTHER STAFF	679	3.8616	1.0910	-0.1454	-0.7417
		Total	709	3.8745	1.0839	-0.1310	-0.7433
Item 17b Assures school compliance with government regulations.	PBS_NOT	PRINCIPAL	15	4.4000	0.7368	-0.4698	-0.8407
		OTHER STAFF	275	4.4655	0.8159	-2.0635	-1.5326
		Total	290	4.4621	0.8110	-1.9711	-1.5030
	PBS	PRINCIPAL	14	4.2857	0.6112	-0.2576	-0.1925
		OTHER STAFF	408	4.4657	0.8016	-3.2959	-1.7284
		Total	422	4.4597	0.7961	-3.2346	-1.6981
	Total	PRINCIPAL	29	4.3448	0.6695	-0.6210	-0.5334
		OTHER STAFF	683	4.4656	0.8068	-2.7530	-1.6437
		Total	712	4.4607	0.8016	-2.6739	-1.6128
Item 18b Promotes staff cohesion and cooperation.	PBS_NOT	PRINCIPAL	15	4.2667	0.7988	-1.1317	-0.5548
		OTHER STAFF	275	4.0145	1.1525	-0.0060	-0.9940
		Total	290	4.0276	1.1373	-0.0588	-1.0066
	PBS	PRINCIPAL	15	4.2667	0.7988	-3.8342	-

							1.5249
		OTHER STAFF	408	3.8946	1.1373	0.2468	- 0.9802
		Total	423	3.9078	1.1285	0.3086	- 1.0007
	Total	PRINCIPAL	30	4.2667	0.7849	0.9033	- 0.9827
		OTHER STAFF	683	3.9429	1.1441	0.1272	- 0.9779
		Total	713	3.9565	1.1328	0.1922	- 0.9958
Item 19b Provides staff with materials/resources/planning times.	PBS_NOT	PRINCIPAL	15	4.6667	0.7237	2.5499	- 1.9808
		OTHER STAFF	276	4.2355	0.9866	0.7883	- 1.2194
		Total	291	4.2577	0.9785	0.8553	- 1.2477
	PBS	PRINCIPAL	15	4.5333	0.6399	0.3975	- 1.0846
		OTHER STAFF	407	4.2162	0.8581	1.1529	- 1.0891
		Total	422	4.2275	0.8528	1.1880	- 1.1003
	Total	PRINCIPAL	30	4.6000	0.6747	0.9574	- 1.4726
		OTHER STAFF	683	4.2240	0.9116	1.0018	- 1.1562
		Total	713	4.2398	0.9057	1.0442	- 1.1737
Item 20b Exposes staff to research and rationale for beh. mgmt..	PBS_NOT	PRINCIPAL	15	4.0000	1.0000	- 0.9121	- 0.4945
		OTHER STAFF	276	3.7210	1.1338	- 0.2244	- 0.6562
		Total	291	3.7354	1.1274	- 0.2209	- 0.6565
	PBS	PRINCIPAL	15	4.2000	0.8619	- 1.5453	- 0.4325

		OTHER STAFF	409	4.0171	0.9788	0.0426	-0.7908
		Total	424	4.0236	0.9746	0.0342	-0.7863
	Total	PRINCIPAL	30	4.1000	0.9229	-1.0164	-0.4907
		OTHER STAFF	685	3.8978	1.0533	0.0074	-0.7662
		Total	715	3.9063	1.0484	0.0029	-0.7628
Item 21b Includes staff in decision-making about beh. mgmt. issues.	PBS_NOT	PRINCIPAL	15	4.1333	1.0601	5.0559	-1.9598
		OTHER STAFF	276	3.7754	1.1186	-0.3379	-0.6465
		Total	291	3.7938	1.1167	-0.2509	-0.6926
	PBS	PRINCIPAL	14	4.5714	0.5136	-2.2405	-0.3245
		OTHER STAFF	411	3.8954	1.1137	0.0960	-0.8889
		Total	425	3.9176	1.1054	0.1746	-0.9205
	Total	PRINCIPAL	29	4.3448	0.8567	7.4288	-2.2235
		OTHER STAFF	687	3.8472	1.1164	-0.1112	-0.7866
		Total	716	3.8673	1.1109	-0.0319	-0.8226
Item 22b Established leadership team to guide beh. mgmt. system.	PBS_NOT	PRINCIPAL	15	3.9333	1.2228	1.0129	-1.2085
		OTHER STAFF	272	3.5588	1.2699	-0.7165	-0.4976
		Total	287	3.5784	1.2682	-0.6918	-0.5243
	PBS	PRINCIPAL	15	4.6000	0.7368	1.3201	-1.6320
		OTHER STAFF	410	4.3390	0.9196	1.7955	-1.4620

		Total	425	4.3482	0.9143	1.8200	-1.4702
	Total	PRINCIPAL	30	4.2667	1.0483	2.1262	-1.5416
		OTHER STAFF	682	4.0279	1.1384	0.2680	-1.0431
		Total	712	4.0379	1.1350	0.3062	-1.0584
Item 23b Publicly supports the leadership team's efforts.	PBS_NOT	PRINCIPAL	15	4.2667	0.7988	-1.1317	-0.5548
		OTHER STAFF	273	3.8242	1.2827	-0.2344	-0.8992
		Total	288	3.8472	1.2650	-0.1433	-0.9264
	PBS	PRINCIPAL	15	4.6667	0.6172	2.6250	-1.7916
		OTHER STAFF	411	4.2019	1.0196	1.2495	-1.3148
		Total	426	4.2183	1.0113	1.3346	-1.3395
	Total	PRINCIPAL	30	4.4667	0.7303	0.3033	-1.0152
		OTHER STAFF	684	4.0512	1.1461	0.5830	-1.1653
		Total	714	4.0686	1.1345	0.6636	-1.1869
Item 24b Is an active participant on the leadership team.	PBS_NOT	PRINCIPAL	15	4.2667	0.7988	-1.1317	-0.5548
		OTHER STAFF	273	3.8388	1.2674	-0.1503	-0.9271
		Total	288	3.8611	1.2500	-0.0597	-0.9528
	PBS	PRINCIPAL	15	4.6000	0.7368	1.3201	-1.6320
		OTHER STAFF	410	4.2122	1.0657	1.2676	-1.3816
		Total	425	4.2259	1.0577	1.3305	-1.3986

						-0.5923	-0.9581
	Total	PRINCIPAL	30	4.4333	0.7739		
		OTHER STAFF	683	4.0630	1.1642	-0.5744	-1.1910
		Total	713	4.0785	1.1524	-0.6455	-1.2084
Item 25b Support leadership team formulating beh. mgmt. action plan.							
	PBS_NOT	PRINCIPAL	15	3.8667	1.1255	-1.5758	-1.0910
		OTHER STAFF	271	3.7159	1.2249	-0.3608	-0.7216
		Total	286	3.7238	1.2185	-0.3178	-0.7349
	PBS	PRINCIPAL	15	4.2000	0.7746	-1.1172	-0.3830
		OTHER STAFF	410	4.1927	0.9353	-1.5415	-1.2575
		Total	425	4.1929	0.9293	-1.5218	-1.2430
	Total	PRINCIPAL	30	4.0333	0.9643	-1.6786	-1.0588
		OTHER STAFF	681	4.0029	1.0846	-0.5957	-1.0669
		Total	711	4.0042	1.0792	-0.6212	-1.0668
Item 26b Provides resources to implement beh. mgmt. plan.							
	PBS_NOT	PRINCIPAL	15	3.6667	1.1127	-1.1375	-1.0237
		OTHER STAFF	270	3.6037	1.2325	-0.6173	-0.5410
		Total	285	3.6070	1.2247	-0.5783	-0.5569
	PBS	PRINCIPAL	15	4.2667	0.7037	-0.6691	-0.4330
		OTHER STAFF	412	4.0485	0.9903	-0.5350	-0.9738
		Total	427	4.0562	0.9818	-0.5775	-0.9801
	Total	PRINCIPAL	30	3.9667	0.9643	-1.9141	-

							1.1661
		OTHER STAFF	682	3.8724	1.1132	0.0006	-0.8291
		Total	712	3.8764	1.1069	0.0437	-0.8400
Item 27b Supports/recognizes staff who implement beh. mgmt. plan.	PBS_NOT	PRINCIPAL	14	3.8571	1.0271	-1.2980	-0.1724
		OTHER STAFF	269	3.7026	1.2342	-0.6424	-0.6174
		Total	283	3.7102	1.2236	-0.6291	-0.6122
	PBS	PRINCIPAL	15	4.0667	0.9612	0.3339	-0.7046
		OTHER STAFF	412	3.8641	1.0901	0.2277	-0.8717
		Total	427	3.8712	1.0855	0.2298	-0.8707
	Total	PRINCIPAL	29	3.9655	0.9814	-0.9930	-0.4144
		OTHER STAFF	681	3.8003	1.1510	-0.1806	-0.7708
		Total	710	3.8070	1.1444	-0.1770	-0.7666
Item 28b Supports/recognizes students improved beh./social skills.	PBS_NOT	PRINCIPAL	15	4.0667	0.7988	-1.3477	-0.1279
		OTHER STAFF	276	3.9819	1.0803	0.0092	-0.8704
		Total	291	3.9863	1.0666	0.0391	-0.8652
	PBS	PRINCIPAL	15	4.4667	0.7432	-0.1056	-1.0743
		OTHER STAFF	413	4.0460	1.0241	0.6208	-1.0324
		Total	428	4.0607	1.0179	0.6604	-1.0457
	Total	PRINCIPAL	30	4.2667	0.7849	-1.1530	-0.5243

		OTHER STAFF	689	4.0203	1.0467	0.3413	-0.9636
		Total	719	4.0306	1.0378	0.3731	-0.9684
Item 29b Informs stakeholders about meeting beh. mgmt. goals.	PBS_NOT	PRINCIPAL	15	3.4667	1.0601	0.8794	-0.7299
		OTHER STAFF	276	3.5471	1.1853	-0.5783	-0.4759
		Total	291	3.5430	1.1777	-0.5469	-0.4798
	PBS	PRINCIPAL	15	4.0000	0.8452	0.9692	-0.8191
		OTHER STAFF	412	3.8544	1.0640	0.0417	-0.7540
		Total	427	3.8595	1.0566	0.0691	-0.7605
	Total	PRINCIPAL	30	3.7333	0.9803	0.8621	-0.8291
		OTHER STAFF	688	3.7311	1.1236	-0.2567	-0.6485
		Total	718	3.7312	1.1173	-0.2306	-0.6529
Item 30b Maintains beh. mgmt. standards/systems/practices.	PBS_NOT	PRINCIPAL	15	3.7333	0.7988	0.3796	-0.4154
		OTHER STAFF	275	3.6145	1.2160	-0.4680	-0.6252
		Total	290	3.6207	1.1973	-0.4081	-0.6349
	PBS	PRINCIPAL	15	4.3333	0.6172	0.4038	-0.3116
		OTHER STAFF	411	4.0341	1.0283	0.7031	-1.0557
		Total	426	4.0446	1.0177	0.7811	-1.0720
	Total	PRINCIPAL	30	4.0333	0.7649	0.3532	-0.5530
		OTHER	686	3.8659	1.1255	0.1141	-

		STAFF					0.8866
		Total	716	3.8729	1.1128	0.1692	-0.8955
Item 31b Ensures all staff know/follow beh. mgmt. practices.	PBS_NOT	PRINCIPAL	15	3.8667	0.7432	-0.9700	0.2266
		OTHER STAFF	274	3.6387	1.1724	-0.3825	-0.6259
		Total	289	3.6505	1.1543	-0.3120	-0.6375
	PBS	PRINCIPAL	15	4.1333	0.7432	-0.9700	0.2266
		OTHER STAFF	412	4.0024	1.0288	0.7236	-1.0423
		Total	427	4.0070	1.0197	0.7570	-1.0417
	Total	PRINCIPAL	30	4.0000	0.7428	-1.1076	0.0000
		OTHER STAFF	686	3.8571	1.1021	0.1506	-0.8700
		Total	716	3.8631	1.0894	0.1978	-0.8718

Appendix I

Internal Consistency of Questionnaire Subscales Items Tables

Table B.ii

A1 Transformational Scale (Importance), Item Analysis If Item Deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Item 01a Leads establishing school vision.	45.950	22.460	0.701	0.913
Item 02a Leads establishing goals to implement vision.	46.010	21.984	0.752	0.910
Item 03a Encourages staff input	46.000	22.129	0.735	0.911
Item 04a Works toward staff consensus	46.090	22.074	0.635	0.916
Item 05a Models/uses problem-solving	46.140	21.652	0.719	0.911
Item 06a Uses data/ staff prioritize goals.	46.230	21.609	0.664	0.914
Item 07a Maintains high performance expectations for all staff.	45.850	23.034	0.675	0.914
Item 08a Encourages/supports staff to self-evaluate goals progress.	46.140	21.606	0.710	0.912
Item 09a Provides prof. dev. activities to support goals.	46.050	22.154	0.646	0.915
Item 10a Actively models skills	46.060	22.022	0.682	0.913
Item 11a Establishes leadership teams	46.120	21.906	0.656	0.915

Table B.iii

A2 Managerial Scale (Importance), Item Analysis If Item Deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Item 12a Provides and enforces clear school-wide systems.	32.910	10.510	0.723	0.901
Item 13a Provides and enforces clear school-wide practices.	32.880	10.513	0.768	0.896
Item 14a Monitors/modifies systems and practices as needed.	32.960	10.388	0.758	0.897
Item 15a Keeps staff up-to-date on mods. to systems/practices.	32.900	10.590	0.755	0.898
Item 16a Anticipates problems and effectively responds to them.	32.920	10.613	0.705	0.902
Item 17a Assures school compliance with government regulations.	32.800	11.073	0.650	0.906
Item 18a Promotes staff cohesion and cooperation.	32.800	11.006	0.694	0.903
Item 19a Provides staff with materials/resources/planning	32.780	11.308	0.668	0.905

Table B.iv

A3 Behavior Management Scale (Importance), Item Analysis If Item Deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Item 20a Exposes staff to research/rationale for beh. mgmt..	50.560	36.972	0.610	0.945
Item 21a Includes staff in decisions about beh. mgmt. issues.	50.390	36.954	0.667	0.942
Item 22a Establish leadership team	50.440	35.314	0.777	0.939
Item 23a Publicly supports leadership team's efforts.	50.370	35.912	0.757	0.939
Item 24a Active participant on leadership team.	50.340	36.295	0.714	0.941
Item 25a Support leadership team beh. mgmt. action plan.	50.390	35.482	0.828	0.937
Item 26a Provides resources to implement beh. mgmt. plan.	50.450	35.333	0.824	0.937
Item 27a Supports/recognizes staff who implement beh. mgmt. plan.	50.480	35.934	0.724	0.941
Item 28a Supports/recognizes students improved beh. skills.	50.280	37.230	0.713	0.941
Item 29a Informs all about meeting beh. mgmt. goals.	50.480	35.779	0.756	0.939
Item 30a Maintains beh. mgmt. standards/systems/practices.	50.340	36.396	0.796	0.938
Item 31a Ensures staff know/follow beh. practices.	50.300	36.490	0.773	0.939

Table B.v

B1 Transformational Scale (Effectiveness), Item Analysis If Item Deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Item 01b Leads establishing school vision.	40.550	65.216	0.832	0.948
Item 02b Leads establishing goals	40.600	64.785	0.849	0.948
Item 03b Encourages staff input to prioritize goals.	40.610	64.159	0.830	0.948
Item 04b Works toward staff consensus	40.810	63.024	0.827	0.948
Item 05b Models and uses problem-solving	40.900	63.206	0.828	0.948
Item 06b Uses data to help staff prioritize goals.	40.690	65.171	0.747	0.951
Item 07b Maintains high performance expectations for all staff.	40.510	65.435	0.737	0.952
Item 08b Encourages/supports staff to self-evaluate goals progress.	40.690	64.324	0.813	0.949
Item 09b Provides prof. dev. activities to support goals.	40.560	66.710	0.695	0.953
Item 10b Actively models skills that support school-wide goals.	40.730	64.557	0.806	0.949
Item 11b Establishes leadership teams to guide goals.	40.550	65.937	0.720	0.952

Table B.vi

B2 Managerial scale (Effectiveness), Item Analysis If Item Deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Item 12b Provides and enforces clear school-wide systems.	28.530	32.850	0.817	0.923
Item 13b Provides and enforces clear school-wide practices.	28.540	32.832	0.836	0.921
Item 14b Monitors/modifies systems and practices as needed.	28.620	32.744	0.845	0.921
Item 15b Keeps staff up-to-date on mods. to systems/practices.	28.500	32.798	0.808	0.923
Item 16b Anticipates problems and effectively responds to them.	28.640	32.350	0.800	0.924
Item 17b Assures school compliance with government regulations.	28.070	35.991	0.701	0.931
Item 18b Promotes staff cohesion and cooperation.	28.550	32.469	0.763	0.927
Item 19b Provides staff with materials/resources/planning times.	28.280	36.115	0.613	0.936

Table B.vii

B3 Behavior Management Scale (Effectiveness), Item Analysis If Item Deleted

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Item 20b Exposes staff to beh. mgmt. research and rationale	43.330	104.764	0.724	0.958
Item 21b Includes staff in decisions about beh. mgmt.	43.360	102.889	0.769	0.957
Item 22b Establish team to guide beh. mgmt. system.	43.200	102.736	0.756	0.957
Item 23b Publicly supports the leadership team's efforts.	43.160	101.564	0.813	0.955
Item 24b Active participant on leadership team.	43.160	101.887	0.779	0.956
Item 25b Support leadership team	43.230	101.503	0.860	0.954
Item 26b Provides resources to implement beh. mgmt. plan.	43.350	101.259	0.857	0.954
Item 27b Supports/recognizes staff who use beh. mgmt. plan.	43.420	101.891	0.791	0.956
Item 28b Supports/recognizes students improved beh. skills.	43.200	105.165	0.720	0.958
Item 29b Informs stakeholders about beh. mgmt. goals.	43.500	101.970	0.813	0.955
Item 30b Maintains beh. mgmt. standards/systems/practices.	43.350	101.414	0.846	0.954
Item 31b Ensures staff know/follow beh. practices.	43.360	102.138	0.825	0.955

Appendix J

Descriptive Statistics for Reduced and Transformed Datasets

Table B.viii

Descriptive statistics for the reduced dataset

Dependent Variable	N	Min.	Max.	Mean	SD	Skew.	Kurtosis
A1 Transformational Scale (Importance)	200	1	5	4.5932	0.4808	-2.8199	* 15.4642
A2 Managerial Scale (Importance)	200	1	5	4.6655	0.5050	* -3.1465	* 16.1654
A3 Behavior Management Scale (Importance)	200	1	5	4.5281	0.6165	-2.3380	* 8.5221
B1 Transformational Scale (Effectiveness)	201	1.4545	5	4.0886	0.7610	-0.9142	0.9834
B2 Managerial scale (Effectiveness)	201	1.3750	5	4.0845	0.7810	-0.7770	0.0823
B3 Behavior Management Scale (Effectiveness)	201	1.3636	5	3.9624	0.8493	-0.7798	0.2188

* Relatively large (>3.0000) skewness and kurtosis values

Table B.ix

Descriptive Statistics for the Reduced Dataset, by ANOVA Main Effects, PBS Status and Position

Scale	Main Effect	N	Skew.	Kurt.
A1 Transformational Scale (Importance)	Non-PBS	81	-1.2843	1.8024
	PBS	119	* -3.5704	* 21.5546
	Principal	30	-1.1430	0.2884
	Cert. Staff	170	-2.8013	* 14.8414
A2 Managerial Scale (Importance)	Non-PBS	81	-2.1290	* 7.8999
	PBS	119	* -3.6429	* 19.7931
	Principal	30	-0.6922	-1.0267
	Cert. Staff	170	* -3.2047	* 15.8433
A3 Behavior Management Scale (Importance)	Non-PBS	81	-1.5549	* 4.3208
	PBS	119	* -3.1722	* 14.7037
	Principal	30	-0.6695	-0.9113
	Cert. Staff	170	-2.5002	* 9.2117
B1 Transformational Scale (Effectiveness)	Non-PBS	83	-0.8017	0.7859
	PBS	118	-0.9937	1.2269
	Principal	30	0.1472	-0.9872
	Cert. Staff	171	-0.8765	0.7093
B2 Managerial scale (Effectiveness)	Non-PBS	83	-0.6740	-0.3004
	PBS	118	-0.8581	0.4764
	Principal	30	-0.6123	0.0039
	Cert. Staff	171	-0.7087	-0.1173
B3 Behavior Management Scale (Effectiveness)	Non-PBS	83	-0.4952	-0.1244
	PBS	118	-0.9980	0.8151
	Principal	30	-0.3834	-0.3027
	Cert. Staff	171	-0.7521	0.0615

- Relatively large (>3.0000) skewness and kurtosis values

Table B.x

Descriptive Statistics for the Reduced and Transformed Dataset

Dependent Variable	N	Min.	Max.	Mean	SD	Skew.	Kurtosis
A1(RI) Transformational Scale (Importance)	200	0.2000	1	0.7703	0.1935	-0.3375	-0.8922

A2(RI) Managerial Scale (Importance)	200	0.2000	1	0.8180	0.2026	-0.7068	-0.6391
A3(RI) Behavior Management Scale (Importance)	200	0.2000	1	0.7644	0.2247	-0.4399	-1.1453
B1(RI) Transformational Scale (Effectiveness)	201	0.2200	1	0.6085	0.2355	0.5144	-1.0011
B2(RI) Managerial Scale (Effectiveness)	201	0.2162	1	0.6119	0.2394	0.4255	-1.0987
B3(RI) Behavior Management Scale (Effectiveness)	201	0.2157	1	0.5813	0.2385	0.5425	-0.9380

Table B.xi

Descriptive Statistics for the Reduced and Transformed Dataset, by ANOVA Cell, PBS Status and Position

Dependent Variable	PBS Status	POSITION	N	Skew.	Kurt.
A1(RI) Transformational	Non-PBS	Principal	15	-0.2616	-1.4174
		Cert. Staff	66	-0.1468	-1.0654

Scale (Importance)	PBS	Principal	15	-0.7260	0.2020
		Cert. Staff	104	-0.3918	-0.7750
A2(RI) Managerial Scale (Importance)	Non-PBS	Principal	15	-0.1128	-1.7516
		Cert. Staff	66	-0.4170	-1.0405
	PBS	Principal	15	-0.5890	-1.2743
		Cert. Staff	104	-1.0173	0.0328
A3(RI) Behavior Management Scale (Importance)	Non-PBS	Principal	15	0.2931	-1.6821
		Cert. Staff	66	-0.1335	-1.4059
	PBS	Principal	15	-0.5361	-1.4819
		Cert. Staff	104	-0.7429	-0.5453
B1(RI) Transformational Scale (Effectiveness)	Non-PBS	Principal	15	0.9944	-0.6023
		Cert. Staff	68	0.6351	-0.8803
	PBS	Principal	15	0.7485	-0.8621
		Cert. Staff	103	0.4314	-1.0915
B2(RI) Managerial Scale (Effectiveness)	Non-PBS	Principal	15	0.3301	-1.2705
		Cert. Staff	68	0.6236	-0.8361
	PBS	Principal	15	0.6524	-1.0036
		Cert. Staff	103	0.3585	-1.2043
B3(RI) Behavior Management Scale (Effectiveness)	Non-PBS	Principal	15	1.3526	1.3781
		Cert. Staff	68	0.9277	-0.2533
	PBS	Principal	15	0.5929	-0.9294
		Cert. Staff	103	0.3189	-1.1952

Table B.xii

Levene's Test for Homogeneity of Error Variances for Transformed Data

Dependent variable (scale)	F	df1	df2	Sig.
A1 Transformational Scale (Importance)	1.73825	3	196	0.16047

A2 Managerial Scale (Importance)	0.37200	3	196	0.77329
A3 Behavior Management Scale (Importance)	1.34259	3	196	0.26178
B1 Transformational Scale (Effectiveness)	0.41805	3	197	0.74024
B2 Managerial scale (Effectiveness)	0.26318	3	197	0.85187
B3 Behavior Management Scale (Effectiveness)	1.35295	3	197	0.25848

The design for each test was: Intercept + PBS Status + Position + PBS Status x Position

Appendix K

Tables Reporting Student and School Demographic Characteristics

Table B.xiii

Schools surveyed, F/R Lunch and Race/Ethnicity by PBS Status

School	PBS F/R Lunch %	Non-PBS F/R Lunch %	PBS Race %	Non-PBS Race %

1	35	39	06	43
2	59	64	98	97
3	12	20	08	01
4	53	50	09	13
5	60	53	06	06
6	17	27	20	17
7	23	22	21	25
8	41	43	75	41
9	52	48	25	24
10	16	27	22	13
11	43	49	08	12
12	43	42	28	33
13	63	59	49	58
14	77	75	66	72
15	17	14	26	41

Table B.xiv

Schools Surveyed, Enrollment and Geographic Location by SW-PBS Status

	PBS	Non-PBS	PBS	Non-PBS

Obs.	# Students Enrolled	# Students Enrolled	Geographic Location	Geographic Location
1	522	296	Small town	rural
2	431	666	city	city
3	456	435	City/fringe	City/fringe
4	115	239	rural	Small town
5	135	198	rural	rural
6	505	870	city	City/fringe
7	432	417	city	city
8	330	341	City/fringe	rural
9	329	334	city	Small town
10	420	462	city	city
11	577	330	Small town	Small town
12	656	1070	Mid-size city	Small town
13	439	351	city	rural
14	227	371	Mid-size city	city
15	656	245	Mid-size city	rural

Table B.xv

Schools Surveyed, Number of Certified Staff and Communication Arts AYP 'Met' Status by SW-PBS Status

Obs.	PBS # Certified Staff	Non-PBS # Certified Staff	PBS # Last 4 Years Met AYP in CA	Non-PBS # Last 4 Years Met AYP in CA
1	50	22	4	4
2	37	45	3	0/1*
3	30	23	4	4
4	18	23	4	4
5	16	21	2	4
6	38	48	4	4
7	35	34	4	4
8	25	32	4	4
9	35	35	4	4
10	32	29	4	4
11	57	33	4	4
12	57	74	4	4
13	35	29	4	4
14	31	46	4	4
15	53	23	4	4

- School has been in existence two years

Table B.xvi

Schools Surveyed, Mathematics AYP 'Met' Status and Average Attendance by PBS Status

	PBS	Non-PBS	PBS	Non-PBS

Obs.	# Last 4 Years Met AYP in Math	# Last 4 Years Met AYP in Math	Attendance Avg. 2002 to 2005	Attendance Avg. 2002 to 2005
1	4	4	96.1	95.0
2	3	1/1*	95.0	94.7
3	4	4	96.1	95.2
4	4	4	94.1	96.1
5	4	4	94.3	95.3
6	4	4	95.3	94.6
7	4	4	95.9	95.6
8	4	4	95.7	95.0
9	4	4	95.4	95.3
10	4	4	95.6	94.9
11	4	4	95.5	95.7
12	4	4	94.3	95.1
13	4	4	95.3	95.7
14	4	4	94.3	94.5
15	4	4	96.2	95.4

* School has been in existence two years

Table B.xvii

Students by Disability and E/BD Status and by SW-PBS Status

SW-PBS School	Pct. Students Identified with Disability	Pct. Students Identified with E/BD	Non-PBS School	Pct. Students Identified with Disability	Pct. Students Identified with E/BD
1	20.3	1.0	1	20.8	.6
2	18.3	1.4	2	15.7	0
3	21.3	0	3	13.4	1.4
4	11.3	0	4	10.8	.9
5	9.6	0	5	22.4	.5
6	20.1	1.8	6	11.7	.2
7	17.1	0	7	13.1	0
8	11.5	.6	8	14.5	0
9	25.2	2.4	9	8.4	0
10	18.8	1.2	10	18.6	0
11	31.7	.7	11	32.2	.5
12	15.9	1.1	12	13.7	.7
13	12.8	.2	13	14.7	.4
14	15.4	2.2	14	15.9	1.2
15	12.8	0	15	10.1	.3
Average	17.5	.8	Average	15.7	.45

Appendix L

Tables of Demographics Related to Questionnaire Respondents

Table B.xviii

Item 3_1, Respondents by Sex and SW-PBS Status

PBS	Descr.	Sex	Frequency	Percent	Valid	Cumulative

STATUS					Percent	Percent
NON-PBS	Valid	Female	267	91.1	92.4	92.4
		Male	22	7.5	7.6	100.0
		Total	289	98.6	100.0	
	Missing	System	4	1.4		
	Total		293	100.0		
SW-PBS	Valid	Female	385	89.1	90.8	90.8
		Male	39	9.0	9.2	100.0
		Total	424	98.1	100.0	
	Missing	System	8	1.9		
	Total		432	100.0		

Table B.xix

Item 3_2, Respondents by Highest Degree Attained and SW-PBS Status

PBS	Descr.	Highest Degree	Frequency	Percent	Valid	Cumulative

STATUS		Attained			Percent	Percent
NON-PBS	Valid	Bachelor's	116	39.6	39.7	39.7
		Master's	156	53.2	53.4	93.2
		Specialist	18	6.1	6.2	99.3
		Ed.D.	2	0.7	0.7	100.0
		Total	292	99.7	100.0	
	Missing	System	1	0.3		
	Total		293	100.0		
SW-PBS	Valid	Bachelor's	113	26.2	26.7	26.7
		Master's	268	62.0	63.2	89.9
		Specialist	37	8.6	8.7	98.6
		Ed.D.	5	1.2	1.2	99.8
		Ph.D.	1	0.2	0.2	100.0
		Total	424	98.1	100.0	
	Missing	System	8	1.9		
	Total		432	100.0		

Table B.xx

Item 3_3, Respondents by Current Position and SW-PBS Status

PBS STATUS	Descr.	Current Position	Frequency	Percent	Valid Percent	Cumulative Percent
NON-PBS	Valid	General Education Teacher	198	67.6	68.0	68.0
		Special Education Teacher	33	11.3	11.3	79.4
		Principal	15	5.1	5.2	84.5
		Asst. principal	2	0.7	0.7	85.2
		Other	43	14.7	14.8	100.0
		Total	291	99.3	100.0	
	Missing	System	2	0.7		
	Total		293	100.0		
SW-PBS	Valid	General Education Teacher	275	63.7	65.8	65.8
		Special Education Teacher	52	12.0	12.4	78.2
		Principal	13	3.0	3.1	81.3
		Asst. principal	8	1.9	1.9	83.3
		Other	70	16.2	16.7	100.0
		Total	418	96.8	100.0	
	Missing	System	14	3.2		
	Total		432	100.0		

Table B.xxi

Item 3_4, Respondents by Race and SW-PBS Status

PBS STATUS	Descr.	Race	Frequency	Percent	Valid Percent	Cumulative Percent
NON-PBS	Valid	Hispanic	3	1.0	1.1	1.1
		African American	19	6.5	6.7	7.8
		Caucasian	253	86.3	89.7	97.5
		Asian	3	1.0	1.1	98.6
		American Indian	4	1.4	1.4	100.0
		Total	282	96.2	100.0	
	Missing	System	11	3.8		
	Total		293	100.0		
SW-PBS	Valid	Hispanic	1	0.2	0.2	0.2
		African American	12	2.8	2.9	3.1
		Caucasian	399	92.4	95.2	98.3
		Asian	5	1.2	1.2	99.5
		American Indian	2	0.5	0.5	100.0
		Total	419	97.0	100.0	
	Missing	System	13	3.0		
	Total		432	100.0		

Table B.xxii

Item 3_6, Respondents by Years of General Education Teaching Experience and SW-PBS Status

PBS STATUS	Years of General Education Teaching Experience	Frequency	Percent	Valid Percent	Cumulative Percent
NON-PBS	0 Yrs.	33	11.3	11.3	11.3
	1 - to 5 Yrs.	67	22.9	22.9	34.1
	6 to 10 Yrs.	74	25.3	25.3	59.4
	11 to 15 Yrs.	35	11.9	11.9	71.3
	16 to 20 Yrs.	37	12.6	12.6	84.0
	21 to 25 Yrs.	28	9.6	9.6	93.5
	26+ Yrs.	19	6.5	6.5	100.0
	Total	293	100.0	100.0	
SW-PBS	0 Yrs.	58	13.4	13.4	13.4
	1 - to 5 Yrs.	106	24.5	24.5	38.0
	6 to 10 Yrs.	88	20.4	20.4	58.3
	11 to 15 Yrs.	54	12.5	12.5	70.8
	16 to 20 Yrs.	47	10.9	10.9	81.7
	21 to 25 Yrs.	31	7.2	7.2	88.9
	26+ Yrs.	48	11.1	11.1	100.0
	Total	432	100.0	100.0	

Table B.xxiii

Item 3_8, Respondents by Years of Special Education Teaching Experience and SW-PBS Status

PBS STATUS	Years of Special Education Teaching Experience	Frequency	Percent	Valid Percent	Cumulative Percent
NON-PBS	0 Yrs.	226	77.1	77.1	77.1
	1 - to 5 Yrs.	31	10.6	10.6	87.7
	6 to 10 Yrs.	12	4.1	4.1	91.8
	11 to 15 Yrs.	8	2.7	2.7	94.5
	16 to 20 Yrs.	6	2.0	2.0	96.6
	21 to 25 Yrs.	6	2.0	2.0	98.6
	26+ Yrs.	4	1.4	1.4	100.0
	Total	293	100.0	100.0	
SW-PBS	0 Yrs.	333	77.1	77.1	77.1
	1 - to 5 Yrs.	44	10.2	10.2	87.3
	6 to 10 Yrs.	19	4.4	4.4	91.7
	11 to 15 Yrs.	10	2.3	2.3	94.0
	16 to 20 Yrs.	12	2.8	2.8	96.8
	21 to 25 Yrs.	9	2.1	2.1	98.8
	26+ Yrs.	5	1.2	1.2	100.0
	Total	432	100.0	100.0	

Table B.xxiv

Item 3_10, Respondents by Years Experience as a Principal and SW-PBS Status

PBS STATUS	Years Experience as a Principal	Frequency	Percent	Valid Percent	Cumulative Percent
NON-PBS	0 Yrs.	278	94.9	94.9	94.9
	1 - to 5 Yrs.	6	2.0	2.0	96.9
	6 to 10 Yrs.	4	1.4	1.4	98.3
	11 to 15 Yrs.	4	1.4	1.4	99.7
	21 to 25 Yrs.	1	0.3	0.3	100.0
	Total	293	100.0	100.0	
SW-PBS	0 Yrs.	416	96.3	96.3	96.3
	1 - to 5 Yrs.	5	1.2	1.2	97.5
	6 to 10 Yrs.	7	1.6	1.6	99.1
	11 to 15 Yrs.	2	0.5	0.5	99.5
	21 to 25 Yrs.	2	0.5	0.5	100.0
	Total	432	100.0	100.0	

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