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PREFACE

The primary objective of this study was to substantiate implementation fidelity of the Positive Behavioral Interventions and Support program (PBS) employed by a school district. The investigation utilized a mixed-method theory-based evaluation to examine the extent to which the PBS program had been implemented in comparison to predetermined goals and objectives. The evaluative measures were employed within a three-phase framework (pre-adoption, delivery and post-delivery) to systematically monitor program implementation. Quantitative and qualitative findings, both formative and summative, provided on-going guidance for the program.

PBS is the application of a broad range of systemic and individualized behavior approaches to achieve socially important behavior change and learning outcomes while preventing problem behavior with all students. District stakeholders chose to implement school-wide PBS in an effort to maximize academic achievement and to create and sustain safe and orderly environments in a unified and common system by identifying, adopting, and sustaining research-validated behavior management practices, policies and systems. Classroom specific behavior management was enhanced with the integrated implementation of selected content from the Classroom Organization Management Program (COMP). All certificated and classified staff, including community and outside agency representation, were engaged in the program implementation endeavors led by district and building leadership teams.

Results demonstrated a successful first year of program implementation. A substantial quantity of items central to school-wide PBS had been adequately established. The value of theory-driven program evaluation was supported. Collectively, findings indicated that both the planned intervention and implementation support system were satisfactorily implemented. Specific items for which reservation was experienced were identified for action planning by team leaders. District stakeholders committed to the model and began to experience the benefits of their program in terms of developing and maintaining a positive school environment for all students. The PBS provided the opportunity for more effective teaching and the provision of more support to individual students with challenging behavior. Suggestions regarding next steps for the PBS field of study and appropriate courses of action for the immediate district were offered.

The district, its families, and community now have a school-wide program that establishes effective learning environments building the capacity to improve student behavior and enhance the education all students, especially students with challenging social behaviors. The district has increased prosocial behavior and decreased misbehavior. Problem behavior is considered less effective, efficient, and relevant and desired behavior more functional. Findings from this study may contribute to the school-wide behavioral support knowledge base by demonstrating theory-based program evaluation and enhancing our understanding of the procedures pertinent to PBS program implementation.

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CHAPTER ONE

INTRODUCTION

Background and Foundation

For over a quarter of a century, the number one concern facing America's public schools has been discipline (Fitzsimmons, 1998). Teachers continually report that student behavior is their number one difficulty encountered in their classrooms (Coates, 1989; Elam, Rose, & Gallup, 1996; Merrett & Wheldall, 1993). Both general and special education teachers report that they are not sufficiently trained to deal with the aggression, defiance, and violence that they witness daily (Horner & Diemer, 1992; Merrett & Wheldall, 1993; Ruef, 1997). Teachers typically employ various methodologies in addressing these concerns by utilizing commonly applied disciplinary measures learned from personal experience and in formal training. Many of today's students, however, require more than the reactive, get-tough discipline approach procedures that are commonly employed (Sugai & Horner, 1994).

Many schools lack the capacity to identify, adopt, and sustain policies, practices and systems that effectively and efficiently meet the needs of all students (Mayer, 1995; Sugai & Horner, 1994, 1999; Taylor-Greene et al., 1997; Walker et al., 1996). In general, systems for the identification, adoption, and sustained use of research-validated practices are lacking. However, the problem is not that schools lack procedures and practices to address these challenges, for procedures and practices have been defined and growing over the past 30 years (Mayer, 1995; Peacock Hill Working Group, 1992; Sugai, 1998; Walker, 1995; Walker et al., 1998). The larger problem has been that schools have been unable to create and sustain the "contextual fit" between procedures, practices, and the features of the environments (e.g., classroom, workplace, home, neighborhood, playground) in which the student displays problem behavior (Albin,

Lucyshyn, Horner, & Flannery, 1996). The systemic solution is to create effective "host environments" that support the use of preferred and effective practices (Zins & Ponti, 1990). These environments have policies (e.g., proactive discipline handbooks, procedural handbooks), structures (e.g., behavioral support teams), and routines (e.g., opportunities for students to learn expected behavior, staff development, databased decision-making) that promote the identification, adoption, implementation, and monitoring of research-validated practices (Sugai & Horner, 1994; 1999).

The intent of this chapter is to (a) identify the need (purpose/significance) for improvement in behavior of students through utilization of positive, research-validated practices in a proactive school-wide application, (b) describe the composition of contextual and mediating elements from the literature base for the implementation and evaluation of a school-wide behavioral intervention program, and (c) delineate the conceptual framework of the design and organization for a theory-driven program implementation evaluation. The overarching goal of the research study was to perform a theory-based evaluation (Chen, 1990; 1998) of the program implementation at a K-12 school complex that entails measures of both causative and prescriptive program delivery and the training and consultation support system, to appraise, inform and provide guidance for the inception of a school-wide behavioral intervention and support program.

Overview of the Literature Base

School-wide Behavior Systems

Schools that implement school-wide behavior support systems define expectations and are careful not to overwhelm their students with too many expectations. From the start of the year, they teach their students about school-wide behavioral expectations and continue that

instruction throughout the year. Instruction that is provided includes lessons in self-control and social skill strategies for all students (Colvin, Sugai, & Kame'enui, 1994). Administrators of the program establish reward systems that use creative and individualized rewards. Program stakeholders provide immediate feedback on wrong behavior and create limits that make challenging behavior unproductive for students. Members of school-wide behavioral support initiatives recognize that about 5% of their students have chronic challenging behavior (Horner, 1994). To assist, team leaders restructure settings where misbehavior commonly occurs as identified through data collection, and involve all school employees in monitoring improvement. Effective school-wide systems have common fundamental components that entail an agreed upon and common approach to discipline. One such agenda that embraces and expands upon these components is Positive Behavior Support (PBS). PBS demonstrates how schools may enhance their ability to address problem behavior through school-wide application despite presenting challenges.

Positive Behavioral Support (PBS)

PBS is the application of behavior analysis to achieve socially important behavior change (Positive Behavioral Intervention and Support Technical Assistance Center, 2001). PBS is a significant behavioral support program that has been applied successfully with a wide range of students, in a wide range of contexts, and has been extended from an intervention approach for individual students to an intervention approach for entire schools and districts. The program is comprised of interventions that consider the contexts within which the behavior occurs, interventions that address the functionality of the problem behavior, interventions that can be justified by the outcomes, and outcomes that are acceptable to the individual, the family, and the supportive community (Office of Special Education Program Center on Positive Behavioral

Interventions and Support, 1999). PBS has been successfully implemented throughout the country and is a well-researched approach designed to promote positive social behavior and decrease disruptive conduct. PBS offers schools capacity building information and technical assistance for identifying, adapting, and sustaining effective school-wide disciplinary practices. Positive behavioral support entails a dynamic process of assessment, intervention, and evaluation resulting in effective support (Center for Positive Behavior Supports and Interventions, 2001) that is preferred over traditional disciplinary practices and views that are commonly employed in schools. A PBS program is tailored to student's specific needs and circumstances, and involves a comprehensive approach to understanding and intervening with the behavior utilizing multi-faceted interventions.

Conceptual Model/Theoretical Framework for PBS

In brief, the major tenet of the PBS program is the employment of proactive/positive behavioral interventions and supports that are research-based versus commonly exercised behavior modification techniques that are grounded in reactive/punitive measures. Paramount to this school-wide endeavor is the integration and practice of addressing academic and/or behavioral concerns through functional assessment of behavior. A key component of PBS is the employment of functional behavioral assessments (FBA). The development of positive behavioral interventions and plans that are guided by FBA is the foundation on which the PBS approach is delivered. A central message from this integral component is that the design of successful behavior change interventions requires identification of the events that reliably predict and maintain problem behaviors (Carr, 1994; Horner, 1994; O'Neill et al., 1997; Repp, 1994; Sugai, Lewis-Palmer, & Hagan, 1998). In alignment with this premise, four common and critical implementation elements serve as the guiding conceptual model/theoretical framework for

school-wide PBS implementation. These fundamental guiding principles, as identified by program developer recommendation (Colvin, Sugai, Kame'enui, 1994) include: specification of clearly defined and measurable results; use of data for decision-making; adoption of evidence-based practices and processes; and provision of supports for high fidelity implementation.

Theory-Driven Evaluation

To effectively evaluate the implementation of the school-wide behavior support program (PBS), a theory-driven model of assessment may be utilized. In application, this implementation evaluation model differentiates the causative theory that explains the outcomes from the prescriptive theory that describes how the program should be implemented to reach intended outcomes (Greenburg et al., 2003). The assessment evaluation of implementation quality is based on both measures of program delivery and on measures of the support systems for training and consultation. External influences that may affect the quality of program implementation are also identified under this conceptual framework of evaluation.

The primary objectives of a theory-driven evaluation are to (a) utilize the essential components of the theory that underlies a particular program to specify the design of the program evaluation itself, (b) to understand *how* and *why* a particular program resulted in certain outcomes, and (c) to use that information as a means to improve the effectiveness of a program (Chen, 1990, 1998; Weiss, 1995). Chen maintains that for an evaluation to be comprehensive, it must address both causative and prescriptive theory. Causative theory describes the "how" and "why" of the program: how the program is expected to achieve particular outcomes, the relationship between the intervention and the outcomes, and the mediators or moderators of the implementation effect (Greenburg et al., 2003). Prescriptive theory refers to how the program should be implemented or the manner in which daily activities of the program should proceed

(including goals, guidelines, and context). Chen (1998) further asserts that the implementation system must also be assessed as part of the program evaluation, for it is as important to the program effectiveness as is the intervention itself.

Study Significance

Need for School-wide Approach

Understanding that student misbehavior occurs on a daily basis in school settings in various means and intensities, educators and other stakeholders are engaging in valiant efforts to maximize academic achievement by attempting to create and sustain safe and orderly environments for all students. It is encouraging that a clearly defined research-validated literature base exists on effective classroom management practice. There are a variety of theoretical models found in the literature that help prepare children for their role as socially competent, responsible, and productive citizens that have been proven effective (Chitooran, 1998). The problem manifested is that many schools have been unable to create and sustain the contextual fit between their procedures and practices and the features of the educational environments in which students display problem behaviors (Albin, Lucyshyn, Horner, & Flannery, 1996). The collective resolution is to establish effective host environments (Zins & Ponti, 1990) that provide policies, structures, and routines that promote the identification, adoption, implementation, and monitoring of research-validated practices (Sugai & Horner, 1994; 1999). Rather than employ piecemeal tactics of behavioral management that vary in individual classrooms within the same school, districts are compelled to employ school-wide systems of discipline.

Among the most important advances in student discipline procedures over the past decade is the recognition of the need for school-wide behavior support systems. The most effective behavior managers are those teachers who acknowledge that reinforcement and

punishment occur naturally and, consequently, analyze and modify environmental, curricular, and instructional variables to positively promote appropriate behavior (Nelson et al., 1999). In schools across the United States, educational stakeholders are engaged in determined labors to raise academic achievement and to establish and uphold safe and disciplined environments for all students. School-wide behavioral support programs accommodate these efforts with goals that define, teach, and support appropriate behaviors in a way that establishes a culture of competence within schools. When this endeavor is achieved, students are more likely to model appropriate behavior and disapprove of inappropriate behavior exhibited by their peers. The fundamental assumption of a school-wide behavioral support program is that behavior can and should be taught just as we teach academics. School-wide behavioral support programs afford a systems approach to building a school's capacity to adopt and sustain effective teaching practices that improve academic, personal, and social outcomes for all students.

Discipline and Positive Reinforcement

Unfortunately, "discipline" commonly is defined by procedures that focus on control with punishment consequences (Taylor-Greene et al., 1997). This traditional discipline perspective is incomplete without attention to the development and support of prosocial behavior. Research suggests that punishment by itself is ineffective in achieving long-term suppression of problem behavior and enhancement of prosocial behavior (Meyer & Evans, 1989). Positive reinforcement, on the other hand, is a universal principle that occurs naturally in every classroom (Maag, 2001) and has been well documented in various journals and books over the past 35 years (Taylor-Greene & Kartub, 2000). Positive reinforcement increases the probability that the behavior it follows recurs, while punishment decreases the probability that the behavior it follows recurs in the future (Ohio Department of Education, 1995). Reinforcing appropriate

behaviors in a positive manner is often ignored and misunderstood because of strong cultural beliefs, selected teacher training, and tradition that encourage punishment.

Instead of using a patchwork of individual behavioral management plans, schools are moving toward school-wide discipline systems that address the entire school, the classroom, areas outside the classroom (e.g., hallways, restrooms), and the individual student with challenging behavior, that result in a continuum of positive behavior support for all students. The need for school-wide behavioral support systems that incorporate prosocial behavior and positive behavioral support and interventions can be supported by the present ineffectiveness of punishment-based intervention and management (Todd, Horner, Sugai, & Sprague, 1999). Intrinsic, non-social, control-based approaches are optional approaches to employ instead of punitive methods, though challenging to implement in schools due to time, curricular, and mindset barriers. Positive reinforcement integrated within a comprehensive and common school-wide approach emerges as the preferred alternative to punishment.

Study Purpose

The objective of the participating K-12 school was to enhance its capacity to educate all students, especially students with challenging behaviors, through adoption and implementation of school-wide PBS, thereby establishing a continuum of discipline expectations and practices. The evaluation goal of the program as implemented was primarily based upon the assessments of the planned and actual interventions and the planned and actual implementation support systems. The quality of the implementation of the PBS program ultimately was determined by a comprehensive measure of the degree to which the intervention program was implemented as it originally was planned (Durlak, 1995; Yeaton & Sechrest, 1981).

Ongoing program evaluation needs to be integrated into a school's routines (Gross-Davis, 1984) to ascertain implementation success. Final analysis of the implementation process led to suggestions that in turn will be useful for sustainability purposes. The findings contribute to the knowledge base of PBS by describing the implementation process undertaken. In addition, it descriptively enhancing one's understanding of the procedures that affect the program implementation (Sugai, 2003). By employing a theory-driven evaluation of the PBS program implementation, useful information was obtained by not only assessing the merit of the program, but also on how the program advanced.

Design and Organization of Study

A small rural city school district was selected as the research investigation site. The participating district received a PBS grant from the Ohio Department of Education to fiscally assist with the implementation of their school-wide program. District leaders coordinated with their local Special Education Regional Resource Center (SERRC) to receive implementation materials and technical assistance for the 2003-2004 and 2004-2005 school years. All building stakeholders were selected to participate with the program implementation evaluation proceedings. During the pre-adoption period in the spring of 2003, administration, and both classified and certified personnel acknowledged and supported the school-wide PBS program for implementation in their schools. Planning sessions took place in the spring, with pre-adoption preparation evaluation documented/recorded and formal training transpired during the 2003-2004 school year.

The primary training program goals of changing systems, altering environments, teaching skills and focusing on positive behavior in order to reduce challenging or impeding behavior through the adoption of common school-wide behavioral interventions are in alignment with

widespread PBS tenets and integrated Classroom Organization Management Program (COMP) component (Everston & Harris, 2002). Specific elements catering to classroom systems of behavioral management from the COMP program were added to the program manual to supplement, yet maintain fidelity to the intended theoretical purpose/concept of the PBS model. Sugai and the OSEP Center on Positive Behavior Support (2002) created an implementer's Blueprint and Self-Assessment for school-wide implementation of PBS designed to serve as a multi-level guide for appraising the status of positive behavior support organizational systems and for developing and evaluating PBS action plans. Specific content and theory embedded within this Blueprint was chosen during the pre-adoption phase to serve as a conceptual framework to be modeled in part and utilized in the school's program goal setting.

To facilitate effective program delivery under a theory-based evaluation model, a three-phase evaluation framework (pre-adoption, delivery, post-delivery) conceptualized by Greenberg et al. (2004) was utilized. By comparing the strategies afforded during these assessment stages, implementation evaluation data demonstrated information about the extent to which the actual planned intervention and implementation support operated relative to the program as implemented. Four dimensions of the planned intervention (Program Model, Quality of Delivery, Target Audience, and Participant Responsiveness) were assessed in adherence to Chen's (1998) prescriptive theory. In addition, the five dimensions (Chen, 1998) of planned implementation support (Pre-planning, Quality of Materials, Technical Support Model, Quality of Technical Support, and Implementer Readiness) were scrutinized. Contextual factors external to the program theory (including implementation barriers) at the classroom, school, district, and community level were also evaluated since they also may affect the intervention process or program quality.

Data collected from surveys, checklists, interviews, observations, and documented record review were analyzed by evaluating findings to what implementation was expected, what implementation had actually transpired, speculated indications of accomplished program outputs, and descriptions of the program implementation's experiences, strengths, and discrepancies/ weaknesses. In the final stage of data collection, the competence, relevance, and conceptual soundness of the school-wide behavioral support program implementation was appraised by triangulating the data collected from the multiple measures/perspectives via a focus group discussion.

In order to substantiate implementation accuracy, indicators of program implementation attainment were reported utilizing both quantitative and qualitative research techniques adhering to a theory-driven criterion, illustrating both baseline and post-intervention findings through process evaluations. In summary, the proposed study focused on a theory-based evaluation of a K-12 campus school-wide behavioral support program (PBS) utilizing a program evaluation research approach in order to enable the investigator to both quantitatively and qualitatively appraise the efficiency of the implementation status of the school-wide behavioral support program and offer recommendations for enhanced implementation action planning.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of this chapter is to examine the significance of using Positive Behavioral Support (PBS) in schools; to explore the benefits of implementing school-wide applications of proactive behavior modification based on sound theory and research; and to analyze the advantages of theory-driven evaluation for school-wide PBS implementation. Each of these areas under discussion is significant to the study's theory-based evaluation of the program implementation for the inception of the district's school-wide behavioral support program. To establish a conceptual underpinning for the benefits of school-wide PBS and theory-based program implementation evaluation, studies demonstrating rich, descriptive data and inferential outcomes of PBS theory-driven evaluation will be explored. An overview of proactive PBS, classroom organization management, and studies related to the strength of school-wide discipline approaches and their theoretical basis will be examined. Next, research illustrating and providing support on how the employment of a theory-driven program evaluation aid in assessing school-wide programs will be highlighted. Lastly the theory-driven perspective used in program evaluation will be defined.

Conceptual Underpinnings of School-Wide Behavioral Support

Four areas of discussion will be addressed in this section. First, a history and context for needed change of behavioral support in schools is provided as a foundation supporting the tenets of PBS. Next, an overview of behavioral data accrued in our country's schools is outlined, including a review of disciplinary practices currently employed in educational settings. Commonly employed punitive correction practices then will be analyzed and compared to more prosocial discipline tactics. This discourse will include a synopsis of the difference between

traditional behavioral management approaches that lack pertinent behavioral modification components and PBS. Finally, the need for school-wide systems application of PBS will be demonstrated through a comparison of prosocial approaches to student misbehavior to traditional tactics focused primarily on changing the student.

History and Context for Change

Year-after-year the top issue our public schools encounter has been discipline. Without proactive measures of intervention, minor problem behaviors are likely to escalate to severe problem behaviors. Further, the challenges associated with educating students with severe problem behavior are escalating as well (Biglan, 1995; Kauffman, 1997; Sprague, Sugai, & Walker, 1998; Sugai & Horner, 1994; Walker, Colvin, & Ramsey, 1995). Although these students may represent only 1-5% of a typical school enrollment, often they can account for more than 50% of the behavioral incidents handled by office personnel and consume significant amounts of educator and administrator time (Sugai, Sprague, Horner, & Walker, 2000; Taylor-Greene et al., 1997). Many of these students require comprehensive or "wraparound" behavioral supports that involve family, school, and community participation (Eber, 1996; Eber & Nelson, 1997; Epstein et al., 1993; Walker et al., 1995, 1996). Increasingly, efforts to establish school-linked service arrangements for children and families are appearing around the country (Sailor, 1996). The science of human behavior has led to the development of practical strategies for preventing and reducing problem behavior (e.g., Alberto & Troutman, 1999; Cooper, Heron, & Heward, 1987; Kerr & Nelson, 1998; Koegel, Koegel, & Dunlap, 1996; Reichle & Wacker, 1993; Wolery, Bailey, & Sugai, 1988). These programs and provisions have been tested and described in numerous schools (Adelman & Taylor, 1997; Dryfoos, 1997; Kagan, Goffin, Golub, & Pritchard, 1996; Schorr, 1997).

There is little question that discipline is learned and can be taught (Maag, 2001). An existing science of human behavior links the behavioral, cognitive, biophysical, developmental, and physical-environmental factors that influence how a person behaves (Baer, Wolf, & Risley, 1968; Bijou & Baer, 1978; Schwartz, 1989; Wolery, Bailey, & Sugai, 1988). This science has taught us that students are not born with "bad" behavior, and that they do not learn better ways of behaving when simply presented with aversive consequences for their problem behaviors (Alberto & Troutman, 2001; Sulzer-Azaroff & Mayer, 1986; Walker et al., 1996). Understanding this, it is imperative that educators focus on the task of analyzing student interaction patterns and reinforcement prospects that exist in their classrooms in order to restructure them to increase desirable student behaviors. Managing students' challenging behaviors efficiently will continue to be a challenging endeavor until educators acknowledge misbehavior as an opportunity for effectively increasing positive social interaction through proactive and systemic measures. The need for school-wide behavioral support systems that integrate prosocial behavior and positive interventions can be substantiated by the existing ineffectiveness of punishment and conventional behavior management practices (Lewis & Sugai, 1996).

Student Behavioral Data and Discipline

The Context of Schools and Discipline

Acquisition of academic content and effective instructional delivery is most likely to occur in school climates that are positive, structured, hospitable, and safe (Ohio Department of Education, 1995). Schools are increasingly challenged in their endeavors to provide an educational environment that is consistently conducive to learning. Insubordinate, disorderly, and hostile behaviors diminish the efficacy and significance of teaching and learning for all stakeholders. Schools are vital settings in which students have opportunities to gain knowledge

and develop. Day after day teachers attempt to provide students learning environments that are constant, positive, and predictable. Despite these positive efforts, educators ever-increasingly face intense challenges and are being asked to do more with fewer resources and to educate an increasingly diverse population of students. The behavioral challenges facing educators today are significant and persistent. It is evident that today's students are demonstrating behaviors that are more challenging and that they come to school with greater needs than displayed before. In fact, the single most common request for assistance from teachers is related to behavior and classroom management (Elam, Rose, & Gallup, 1999).

Educators face major challenges due to a wide range of problem behaviors that take place in classrooms, hallways, playgrounds, buses, and cafeterias. Some of the hardships experienced in today's schools include: (a) a general lack of discipline (e.g., disrespect, insubordination); (b) an increase in school violence (e.g., assaults, fighting); (c) inefficient use or loss of instructional time (e.g., decreased achievement and teaching time); (d) an over-reliance on punishment-based, exclusionary programming (e.g., office discipline referrals, detention, suspensions, expulsions); (e) failed attempts to provide individualized and appropriate educational opportunities for students with disabilities and students from diverse backgrounds, lacking fluency with specialized behavioral practices (e.g., functional assessment, behavioral intervention, teaching prosocial skills); (f) disenfranchisement of families and communities; and (g) fragmented, redundant, and inefficient multidisciplinary efforts (Sugai & Horner, 2001). In view of this data, Walker and colleagues (1995) indicate that 22% of school students will exhibit challenging behaviors at some point in their school career.

Behavior Quantified

A typical elementary school enrolls more than 400 students and the average high school enrolls over 2,000 students (Sailor, 1996). These students come from varied cultures and backgrounds, further intensifying classroom management practices. Epidemiological studies suggest that 13-30% of young children engage in problem behavior that warrants intervention (Emerson, 1995), with 12-22% of youth under the age of 18 needing mental health services (Surgeon General, 2000). The research literature on problem behavior also indicates an increase in students exhibiting serious problem behavior in primary grade sites within the last two decades (McDougal & Hiralall, 1998). Unfortunately, 36% of general public school parents fear for the physical safety of their children at school (Gallup, Elam, & Rose, 1998). Moreover, the general public rated fighting/violence/gangs, lack of discipline, lack of funding, and drug use as the top four biggest problems facing local schools. These same four have been in the top five for over 15 continuous years (Gallup, Elam, & Rose, 1998). Effective teaching and learning is adversely affected when student misbehaviors exceed an acceptable norm of quantity and severity. The ensuing list (Center on Positive Behavioral Interventions and Support, 1999) offers alarming insight into the behavioral challenges that teachers in U.S. schools encounter:

- An elementary school principal reported that 100% of her office discipline referrals came from only 8.7% of her total school enrollment and 2.9% had three or more.
- An elementary school principal found that over 45% of the school behavioral incident reports were coming from the playground.
- A middle school leadership team discovered that nearly half of the school's office discipline referrals in one year came from only about 6% of the total student enrollment.
- In one school year, a 13-year-old student received 87 office discipline referrals.

- In one school year, a sixth grade teacher processed 273 office discipline referrals.
- A middle school principal reported that he must teach classes when teachers are absent, because substitute teachers refuse to work in a school that is unsafe and lacks discipline.
- A middle school counselor reported spending nearly 15% of his day "counseling" staff members who feel helpless and defenseless in their classrooms because of a lack of discipline and support.
- An urban middle school with 600 students reported over 2,000 discipline referrals to the office from September to May.
- A rural middle school with 530 students reported over 2,600 office referrals. Of these referrals 304 students had at least one referral, 136 students had at least five referrals, 34 students had more than 20 referrals, and one student had 87 office referrals.
- An intermediate/senior high school with 880 students reported over 5,100 office discipline referrals in one academic year. Nearly 2/3rds of all of the students have received at least one office discipline referral.
- A suburban high school with 1400 students reported over 2000 office referrals from September to February of one school year.
- In one state, expulsions increased from 426 to 2,088 and suspensions went from 53,374 to 66,914 over a four-year period. In another state, expulsions increased form 855 to 1180 between the 1994-95 and 1995-96 school years (Juvenile Justice Fact Sheet, 1998), a 200% increase from the 1991-92 school year.
- In one state, 10.7% of students who had been suspended or expelled also were found in the state's Department of Juvenile Justice Database; 5.4% of suspended students were arrested

while on suspension; and 18.7% were arrested while on expulsion (National Association of Child Advocates, 1998).

- Being suspended or expelled from school is reported by students as one of the top three school-related reasons for leaving school (National Association of Child Advocates, 1998).

A review of this data might prompt one to note that a large quantity of students exhibit manageable behaviors and a smaller percentage demonstrate the more severe challenging behaviors. In fact, it has been noted that 6-9% of children in schools account for greater than 50% of discipline referrals (Sprague et al., 1999; Sugai et al., 2001). With this in mind, discipline needs to be incorporated into the typical school day as a form of instruction. This can be accomplished by integrating the needed instructional component within the curriculum and/or present at opportune moments. The inherent challenge in accomplishing this task is that educators mistakenly implement punishment, rather than discipline – which they erroneously believe they are performing. Therefore, discipline needs to be delineated and understood by educators in order to be effectively employed in schools.

Punishment vs. Discipline

Punishment. Disciplinary practices appearing in school policies and procedures handbooks across the country reveal a somewhat narrow focus on punishment: in-school and out-of-school suspension, expulsion, fines, detention, restitution, and even corporal punishment still in some states. These methods evidence little effect on encouraging students to perform socially appropriate behaviors. The terms discipline and punishment are often used interchangeably when referring to correcting student misbehavior even though they do not have the same meaning. Contrary to popular use, however, the two oppose each other both in method

and result (Ohio Department of Education, 1995). By comprehending the difference, educators can improve the successful management of student misbehavior.

By definition, punishment does one thing; it decreases or eliminates behavior. Unfortunately, use of punitive measures serves only as a quick fix rather than addressing the root problem. When used in isolation, it only stops the immediate behavior. It does not change behavior long term because the basic need causing the behavior is not met. In whatever context that it is used, punishment is merely a brief resolution to a situation since it focuses on the action instead of the cause. Punishment generally has no instructional value and requires little change in beliefs on a student's behalf. If it were effective, punishment would actually be used less rather than more frequently with a particular student because the desired effect would be to reduce the inappropriate behavior (Maag, 2001). Simply suppressing a student's inappropriate behavior with punishment will not guarantee that the student knows what appropriate behavior should be performed in its place. Conversely, punishment can also be part of a practitioner's arsenal. The problem occurs when there is an over-reliance upon it.

Discipline. In contrast, discipline involves planning, teaching, and evaluating and, thus, is a more acceptable approach to changing behavior. When it is effectively implemented, discipline provides appropriate, logical consequences for behavior, resulting in long term and positive behavioral changes. True discipline does not focus on isolated behaviors, but is a learning process that provides a child with a variety of skills to become an effective learner (McMullen, 1996). This is due in part because discipline addresses the cause of the behavior, helping to create a safe, positive learning environment via commitment, planning, and ongoing problem solving. Discipline is firm, fair and appropriate to the behavior, though it takes commitment, planning and ongoing problem solving.

Unfortunately, discipline is commonly, but inaccurately, operationalized in schools by procedures that focus on control with punishment consequences. This traditional discipline perspective is incomplete without attention to the development and support of prosocial behavior. Research suggests that punishment by itself is ineffective in achieving long-term suppression of problem behavior and enhancement of prosocial behavior (Bear, 1996). Webster (2004) indicates that the word discipline derives from the Latin root of *disciple/discipere*, meaning to teach or comprehend. Hence, an instructional component is required for the provision of genuine discipline. A more functional definition of discipline is "the steps or actions, teachers, administrators, parents, and students follow to enhance student academic and social behavior success" (Ohio Department of Education, 1995, p. 39). As such, discipline may be conceived as an instrument for success for all teachers, students, and settings.

Traditional Behavior Management vs. Proactive Systems Applications and PBS

The primary difference between PBS management practices and traditional behavioral management approaches is that positive and proactive methodologies focus on changing the environment while traditional approaches focus predominantly on changing the person. Over the past 30 years, a clearly defined research-validated literature base exists on effective classroom management practice (Alberto & Troutman, 1998; Charles, 1995; Colvin & Lazar, 1997; Kame'enui & Darch, 1995; Kerr & Nelson, 1998; Sugai & Tindal, 1993). Yet, research has shown that most behavior management techniques used by teachers are rarely effective, particularly in managing behavior over time (Merrett & Wheldall, 1993). Hence, effectively changing students' behaviors will require teachers to also alter their own behaviors. This, in turn, requires that they understand the goodness-of-fit between the employment of positive reinforcement and their own ideals.

Research performed by Fueyo (1991), Gleason and Hall (1991), and Merrett and Wheldall (1993) indicate that most teacher training programs for both general and special educators provide little or no training on classroom discipline techniques. Teachers have been trained that their principal responsibility as an educator is to teach their students the academic curriculum and to control their socially inappropriate behaviors. Techniques based on prosocial positive reinforcement do not match many educators' paradigm of discipline techniques (Hall, Panyan, Rabon, & Broden, 1968; Kampwirth, 1988; Merrett & Wheldall, 1993) in that many do not believe that it is their responsibility to manage students' behaviors. The discipline techniques teachers typically employ are those learned from personal experience, formal education, and anecdotal stories shared among teachers (Kampwirth, 1988; Merrett & Wheldall, 1993). Reinforcing appropriate behaviors in a positive manner is often ignored and misunderstood because of strong cultural beliefs and tradition that encourages punishment. Anderson, Albin, Mesaros, Dunlap, and Morelli-Robbins (1993) and Kampwirth (1988) suggest that punishment by itself is ineffective in achieving long-term suppression of problem behavior. Regrettably, educators operationally define discipline as procedures that focus on control with punishment consequences. This control mindset places teachers in a reactive versus proactive position when managing their students' challenging behaviors.

Research findings by Kampwirth (1988), Trovato, Harris, Pryor, and Wilkinson (1992), and Weigle (1995) indicate that teachers use isolated procedures for an array of excess behaviors. Teachers typically respond to student displays of chronic problem behavior by increasing their use of verbal reprimands, exclusionary consequences, and loss of privileges. Horner and Sugai (1998) point out that conventional responses to student misbehavior by educators typically involves increasing monitoring for future problem behavior, re-reviewing

school rules and sanctions, extending the continuum of aversive consequences, improving the consistency of use of punishments, and establishing a "bottom line." Unfortunately, these methods evidence little effect on encouraging students to perform socially appropriate behaviors (Merrett & Wheldall, 1993). Interventions are often employed in a trial-and-error fashion and selected because they are immediately effective. Conversely, it has been observed that the described practices may actually increase excess behavior over time. Interventions of such nature have been coined as *"quick fix"* interventions (Anderson, Albin, Mesaros, Dunlap, & Morelli-Robbins, 1993; Kampwirth, 1988).

Attempts to respond to challenging behaviors by school systems often results in an over-reliance on the use of aversive and exclusionary consequences. Typical systems responses include, but are not limited to: (a) zero tolerance policies, security guards, student uniforms, metal detectors, video cameras, and suspension/expulsion; (b) exclusionary options (e.g., alternative programs); and (c) contexts in which reactive responses are predictable (Kampwirth, 1988; Ruef, 1997; Snell, 1988). As educators and school systems move from such traditional behavior management techniques to more proactive systems applications, the call for PBS becomes more apparent. Liaupsin, Jolivette and Scott (2004) provide a comparison of traditional behavior management tenets to those that emphasize proactive PBS (see Table 1).

Need for School-Wide Prosocial Systems Approach

A variety of theoretical models supporting the preparation of children for their role as socially competent, responsible, and productive citizens have been shown to be useful (Chitooran, 1998). One of the most important advances in student discipline procedures over the past decade is recognition of the need for effective school-wide behavior support systems. The primary characteristics of effective school-wide systems are presented in Table 2 (Colvin, Sugai,

Table 1

Comparison of Traditional Behavior Management and PBS

Traditional Behavior Management	PBS
Views individual as "the problem"	Views systems, settings, and skill deficiencies as "the problem"
Attempts to "fix" individual	Attempts to "address" contributing issues within systems, settings, and skills
Extinguishes behavior	Creates new contacts, experiences, relationships, and skills
Sanctions aversives	Sanctions positive approaches
Takes days or weeks to "fix" a single behavior	Takes years to create responsive systems, personalized settings, and appropriate/empowering skills
Implemented by a behavioral specialist often in atypical settings	Implemented by a dynamic and collaborative team using person-centered planning in typical settings
Often resorted to when systems are inflexible	Flourishes when systems are flexible

& Kame'enui, 1994; Horner, 1998; Todd, Horner, Sugai, & Sprague, 1999). Traditional behavior management techniques employed by educators are commonly isolated, inconsistent, and not effective for long-term outcomes. School-wide discipline systems address the entire school, the classroom, areas outside the classroom, and individual students with challenging behaviors (Behavior Home Page, 2001; Todd, 2001). A school-wide behavior support system may be defined as the broad range of systemic and individualized strategies designed to achieve important social and learning outcomes while preventing problem behavior for all students (Center on Positive Behavioral Interventions and Supports, 2001).

Table 2

Characteristics of Effective School-Wide Systems

Major Components

- An agreed upon and common approach to discipline.
- A positively worded statement of purpose.
- A small number of positively stated expectations for all students and staff.
- Procedures for teaching these expectations to students.
- A continuum of procedures for encouraging displays and maintenance of these expectations.
- A gamut of procedures for discouraging displays of rule-violating behavior.
- Procedures for monitoring and evaluating the effectiveness of the discipline system on a regular and frequent basis.

Key Elements

- Establishing priority and mission.
- Selecting and developing a leadership team.
- Examining behavioral support needs through data.
- Establishing school-wide behavioral expectations.
- Establishing procedures to teach behavioral expectations across all settings.
- Encouraging expected behaviors.
- Discouraging problem behaviors.
- Monitoring implementation and progress.

Universal Features

- Total staff/team commitment to managing behavior.
- Clearly defined and communicated expectations and rules.
- Consequences and clearly stated procedures for correcting rule-breaking behaviors.
- An instructional component for teaching students self-control and/or social skill strategies.
- A support plan to address the needs of students with chronic, challenging behaviors.
- Identification of the purpose of challenging behavior.
- Teaching of appropriate alternative responses that serve the same purpose as the inappropriate behavior.
- Rewarding of positive behaviors and minimizing the rewards for defiant behavior.
- Reduction of physiological, environmental, and curricular factors that trigger misbehavior.

Schools that implement school-wide systems of PBS focus on taking a team-based system approach and teaching appropriate behavior to all students in the school (Sugai, Lewis-Palmer, & Hagan, 1997). Within school-wide behavioral support systems, students are taught

right from the start of the year about the program and continue that instruction throughout the year. Instruction typically includes lessons in self-control and social skill strategies for all students with a built-in system for monitoring program success. Classroom management guidelines, procedures, and practices are positive, proactive, and promote the instruction of appropriate behaviors. Successfully addressing problem behavior via direct instruction requires an increased emphasis on proactive approaches in which expected and more socially acceptable behaviors are directly taught, regularly practiced in the natural environment, and are followed by frequent positive reinforcement. A reward system that uses creative and individualized rewards is commonly established in which stakeholders provide immediate feedback on wrong behavior and create limits that make challenging behavior unproductive for students. Many studies have demonstrated that a school-wide approach using PBS stimulates appropriate behaviors by all students (Horner, Dunlap, Koegel, Carr, Sailor, Anderson, Albin, & O'Neill, 1990; Koegel, Koegel, & Dunlap, 1996; Lewis, Sugai, & Colvin, 1998).

A uniform school-wide behavioral program policy can also serve as a standard to guide school efforts and help increase accountability. Educators who have adopted a school-wide behavior support approach have demonstrated that it is possible to create and sustain learning and teaching environments that are safe, secure, positive, inclusive, competent, and accommodating (e.g., Lewis & Sugai, 1999; Sugai & Horner, 1999; Sugai, Horner, & Gresham, 2004; Sugai et al., 2000; Walker et al., 1996). A successful school-wide behavioral program requires both the unification of building procedures and personnel and the modification of stakeholders' behaviors in order to change student conduct. Clearly, from a preventive standpoint, one may acknowledge that all schools can benefit from having in place a universal,

clearly defined and consistently supported behavioral management system that is designed to assist students in managing their own behaviors.

Positive Behavioral Support

The purpose of this section of the literature review is to define and examine the significance of the utilization of PBS in schools. More specifically, a comprehensive overview of the systemic continuum of levels of prevention of PBS will be provided. The foundations and features of PBS and its utilization as a means to decrease student misbehavior and increase relevant and desired behavior will be described relative to school-wide applications. The general principles of functional analysis and highlights of behavioral intervention planning will be defined and their intrinsic role in PBS illustrated. To lay the underpinning for the benefits of the application of functional behavior analysis to achieve socially important behavior change, studies demonstrating the supportive outcomes of PBS will be discussed. Next, the research on the necessary planning features for successful program implementation and planning facets of PBS will be considered. A descriptive discussion of the Classroom Organization and Management Program (COMP) and its interwoven relationship to the PBS program will be presented. Finally, an interpretation of the theory component of PBS will be offered.

PBS Overview

Procedures and practices for behavioral support in schools have been defined and implemented by both theorists and practitioners over the past 30 years (Mayer, 1995; Peacock Hill Working Group, 1992; Sugai, 1998; Walker, 1995; Walker et al., 1998). In the early to mid 1980s major influences such as Gene Edgar, Rick Neel, B.F. Skinner, Owen White, and others have noted that problem behavior is everywhere. During these "formative years" (Sugai, 1998), it became evident that teacher training and effective systems were needed in our schools. This

brought about the needed training piece into our schools with practices such as applied behavior analysis, direct instruction, social skills instruction, and behavioral assessment. The "train-and-hope" approach (Sugai & Horner, 1999) offered evidenced-based knowledge for behavior change and classroom management, though produced little sustainability. Incomplete adoption, inaccurate school-wide use, and over-reactive systems still existed.

To address these deficits, a school-wide behavioral leadership team led by Ralph Pruitt (1986) demonstrated successful gains over a four-year duration in an elementary school with applications of behavioral principles to their positive and preventive school-wide discipline program. Difficulties encountered in their work involved replication, documentation, and efficiency. From 1991 to 1996 *Project Prepare* emerged and was established with influences such as Geoff Colvin, Cory Dunn, Vern Jones, Ed Kame'enui, Roy Mayer, C.M. Nelson, Hill Walker, and others. The development and similar undertakings from this period's professionals in the field generated prominent features of effective school-wide discipline systems and continuums of behavior support, though durability was noted as lacking.

Resilience was attended to from 1996 to 1999 when Randy DePry, Rob Horner, Tim Lewis, Jeff Sprague, Anne Todd, Guy Lee, and others created *Effective Behavior Support*. Principles such as behavioral teams, data collection, administrative support/leadership, and direct teaching of desired behaviors were implemented widespread with a goal of multiple-school implementation. Evolving from this, the Center on Positive Behavioral Interventions and Support was established in 1999 where expansion of school-wide PBS initiatives became a standard. Principal scholars advancing school-wide PBS included, but were not limited to, Tony Biglan, Carl Liaupsin, Glen Dunlap, Lucille Eber, Shanna Hagan-Burke, Don Kincaid, Teri Lewis-Palmer, Wayne Sailor, George Sugai and Terry Scott. In 2002, the *PBS Blueprint* was developed

to overcome scale, expansion, and capacity building challenges. Renee Bradley, Lucille Eber, Rob Horner, Rud Turnbull, and others delineated an expansion of a system approach to school-wide PBS. Since then, dissemination and refinement of PBS have been the business of those interested in addressing the behavioral challenges encountered in our schools today.

School-Wide PBS

While PBS was developed initially as an alternative to aversive interventions used with students with significant disabilities who engaged in extreme forms of self-injury and aggression (Durand & Carr, 1985; Meyer & Evans, 1989), the technology has been successfully utilized with a wide range of students, in a wide range of contexts (Carr et al., 1999; Horner, Albin, Sprague, & Todd, 1999) and extended from an intervention approach for individual students to an intervention approach for entire schools (Colvin, Kame'enui, & Sugai, 1993; Colvin, Sugai, Good, & Lee, 1996; Lewis, Colvin, & Sugai, 2003; Lewis, Sugai, & Colvin, 1998; Taylor-Greene et al., 1997; Todd, Horner, Sugai, & Sprague, 1999). PBS has several key anchors including the application of Functional Behavioral Assessment (FBA), environmental redesign (i.e., changing aspects of the setting), curriculum redesign (i.e., teaching new skills), modification of behavior (i.e., teaching and changing student and adult behavior), and removing rewards that maintain problem behaviors (Carr et al., 1994; Luiselli & Cameron, 1998; O'Neill et al., 1997). The PBS approach emphasizes the teaching of appropriate behaviors rather than traditional punitive and exclusionary practices, and it focuses on replacing intimidation and control with environmental redesign to achieve a more durable and resulting change in student behavior. The principal features of school-wide PBS are illustrated in Figure 1.

Direct work with children, total classroom support, and school-wide projects are the three essential standards that school-wide PBS conveys. From these, four main procedures are

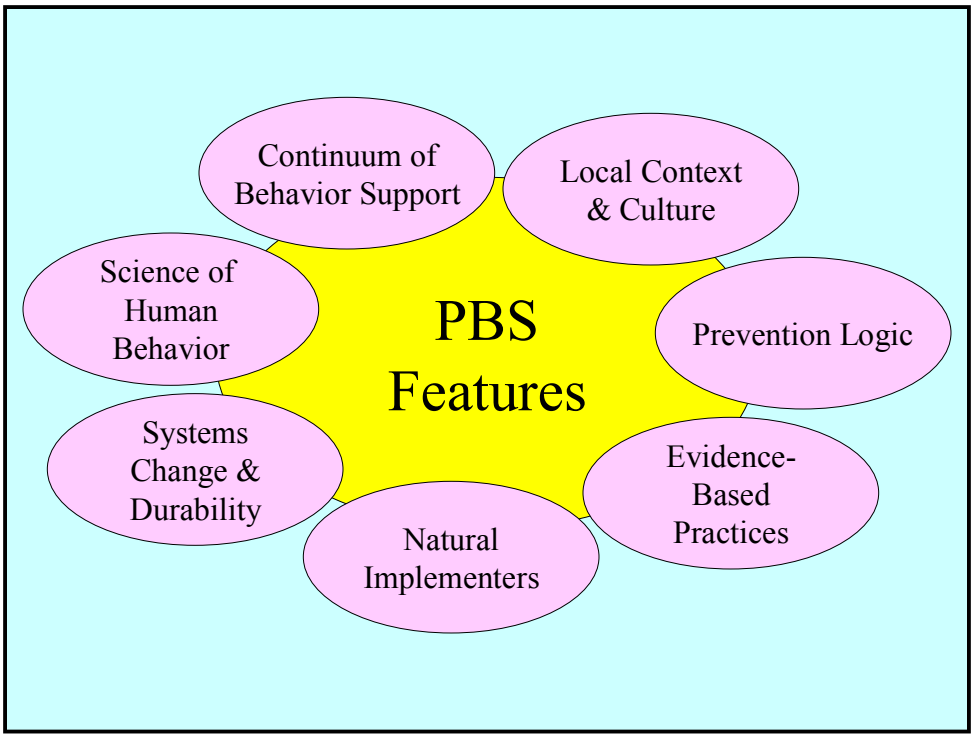

Figure 1. *School-Wide PBS Features.* Used with permission from the OSEP Center on Positive Behavioral Intervention & Support, copyright 2002.

implicated: (a) identifying the purpose of challenging behavior; (b) teaching appropriate alternative responses that serve the same purpose as the challenging behavior; (c) consistently rewarding positive behaviors while minimizing the rewards for challenging behavior; and (d) minimizing the physiological, environmental, and curricular factors that trigger challenging behavior (Horner, 2001). School-wide PBS programs take advantage of sound educational practice and result in increased teaching and learning time, increased productivity, inclusion, and independence (Sugai, Horner, & Todd, 2003). Implementing PBS school-wide also entails adult behavior change in responses and instructional routines as well as learning environment modifications such as curricular accommodations and social networks.

Proactive Behavioral Instruction

A great deal of research has demonstrated the efficacy of PBS in addressing the challenges of behaviors that are dangerous, highly disruptive, and/or impede learning and result

in social or educational exclusion (Carr et al., 1999; Koegel, Koegel, & Dunlap, 1996). For the most part, discipline practices in our schools are reactive in practice and misbehaviors are responded to with punitive strategies that entail reprimands, loss of privileges, office referrals, suspensions, and expulsions. Proactive instruction of behavioral expectations and the provision of rewards to students for demonstrating appropriate behavior is a much more positive and informed approach (Horner & Sugai, 2000). Proactive school-wide discipline systems create environments in which: (a) learning and teaching are valued, and aggressive, unsafe behavior are discouraged; (b) respect, responsibility, cooperation, and other highly valued character traits are taught and encouraged; (c) individual differences are valued rather than criticized; (d) educating students with disabilities can be supported more effectively and efficiently; and (e) the teaching of fundamental skills can be maximized (Fitzsimmons, 1998).

Proactive school-wide behavior support is a set of problem solving strategies and processes that can be used to build upon a school's existing strengths. Examples of proactive school-wide strategies include: (a) modifying task characteristics; (b) reorganizing the physical setting; (c) clarifying routines and expectations; (d) revising the activity schedule; (e) changing social interactions; (f) providing more opportunities for choices; (g) enhancing the predictability of the setting; and (h) addressing physiological issues that may be affecting behavior (Horner, Sugai, Todd, & Lewis-Palmer, 2005). Applications of PBS are complimentary in that well-structured group applications, such as school-wide classroom management systems provide a foundation for effective individualized support (Dunlap et al., 2000). Many behavioral researchers recommend that schools develop broader, proactive, positive school-wide systems of behavior management (e.g., Colvin, Kame'enui, & Sugai, 1994; Sugai & Homer, 1994).

Comprehensive School-Wide Discipline System Components

The components of PBS are based on applied behavior analysis and are backed by applied research indicating their efficacy with numerous populations (e.g., Anderson et al., 1993; Bickel & Bickel, 1986; Dickie et al., 1991; Ford, 1984; Kemp & Carr, 1995; Meyer & Evans, 1989; White, 1988). School-wide proactive discipline systems are often cited within the professional literature as best practice (e.g., Lewis, Chard, & Scott, 1994; Peacock Hill Working Group, 1991; Sugai & Homer, 1994). In fact, schools implementing school-wide PBS with fidelity report 40-60% reductions in office discipline referrals (Chapman & Hofweber, 2000; Colvin & Fernandez, 2000; Horner & Sugai, 2000; Horner et al., 2002; Lohrman-O'Rourke et al., 2000; Nakasato, 2000; Nersesian, Todd, Lehmann, & Watson, 2000; Sadler, 2000; Taylor-Greene & Kartub, 2000), improved student satisfaction (Lewis-Palmer, Horner, Sugai, Eber, & Phillips, 2002), improved faculty/staff satisfaction (Taylor-Greene et al., 1997), and improved administrator perceptions of school safety (Schneider, Walker & Sprague, 2000). The fundamental components of school-wide PBS mirror the components, elements and features deemed central to effective school-wide discipline systems (Todd, Horner, Sugai & Sprague, 1999):

- School-wide discipline practices and procedures;
- Active leadership and ongoing participation of building principal;
- Cultivation of staff commitment for consistent implementation;
- Team-based planning and problem-solving;
- Use of building-based discipline and academic data to make decisions;
- An instructional approach to behavior and classroom management;
- Classroom management and behaviorally based interventions;

- Functional assessment-based behavior support planning;
- Comprehensive plans for individual students with intensive needs;
- Active participation of families, students and teacher(s); and
- Integration with mental health and other community supports.

Systems Tactic

A leading movement in discipline proceedings within today's schools is the emphasis and utilization of school-wide systems of behavioral support. Individual school buildings and entire districts are moving away from the hodgepodge employment of individual collections of rules to a continuum of PBS for all students in and out of the classroom. Behavior cannot be disassociated from context. It is bi-directionally linked to environmental variables. Therefore, through systemically modifying the environment, it is possible to prevent or reduce challenging behavior. Kincaid (1996) notes that systematic instruction involves using effective instructional cues, analyzing and breaking down task components, employing appropriate teaching methods (e.g., prompting, shaping, and fading procedures), and rewarding and correcting behaviors consistently. Through the appropriate systematic redesign of settings, programs, and systems, behavioral problems may be prevented on a large-scale basis.

Historically, discipline in schools has been driven by attention to specific children with problem behaviors rather than embracing a systemic outlook. A systems approach considers the school as the basic "unit of analysis" or "point of influence or action" and how the collective actions of individuals within the school contribute to how the school is characterized (Horner, 2001). School-wide PBS emphasizes the founding of systems that sustain and support the adoption and durable implementation of evidence-based practices and procedures (Sugai & Horner, 1994, 1999). Employment of a systemic approach facilitates the examination of

outcomes, practices, data, and systems (see Figure 2). Horner (2001) asserts that these systems and integrated features are needed to support the collective use of best practices by individuals in an education system. Without a systems approach, identification of practices is limited, adoptions are incomplete, and attention to school initiatives to address discipline is episodic and short term (Sugai & Horner, 1999; Zins & Ponti, 1990).

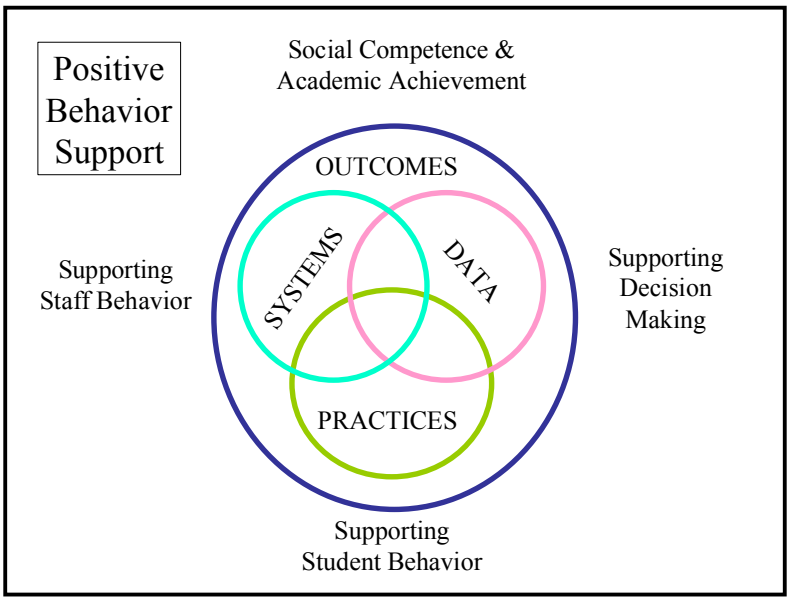

Figure 2. *PBS School-Wide Elements.* Used with permission from the OSEP Center on Positive Behavioral Intervention & Support, copyright 2002.

School-Wide System of PBS

PBS is the application of a behaviorally-based systems approach that improves the link between research-validated practices and school settings. As a systems approach to discipline, PBS emphasizes: (a) prevention of problem behaviors by providing proactive instruction of desired behavioral expectations, active reinforcement of appropriate behavior, and monitoring and correction of problem behavior; (b) on-going collection and use of data for decision-making; and (c) application of more intensive and individualized support for students who do not respond to prevention efforts (Lewis & Sugai, 1999; Sugai & Horner, 2002). By employing a systems

approach, multiple points of support in schools are addressed (i.e., individual student, classroom, school-wide, district, and state). A systems perspective not only provides support for the adoption and sustained use of effective school practices (Sugai & Horner, 1994, 1999), but implementation outcomes yield an educational organization that embraces a common vision, language, and experience (Gilbert, 1997; Horner, 2002). School-wide PBS is of particular importance due to the emphasis on behavioral systems as well as individual children.

PBS Continuum of Levels of Prevention

The PBS systems approach employs a three-tiered tactic to prevention of which attention is focused on creating and sustaining primary (school-wide), secondary (classroom), and tertiary (individual) systems of support (see Figure 3). Primary prevention (whole school) focuses on preventing the development of new cases of problem behaviors by cooperatively focusing on all students and staff, across all settings (i.e., school-wide, classroom, and nonclassroom/ unstructured settings). Secondary prevention (individual or small groups of at-risk learners) focuses on reducing the number of existing cases of problem behaviors by establishing efficient and rapid responses to occurrences of problem behavior. Tertiary prevention (students with complex needs and chronic behaviors that severely impact the student's school, home and/or community functioning) focuses on reducing the intensity and/or complexity of existing cases of problem behavior that are resistant to primary and secondary prevention efforts (Lewis & Sugai, 1999; Sugai et al., 1999; Walker et al., 1996). Collectively, a proactive (positive and preventative) perspective is maintained along the three systemic behavioral tiers to positively influence behavior (Sugai & Horner, 2001). A paramount charge of school-wide PBS is to create and maintain primary, secondary, and tertiary systems of support that facilitate making misbehavior less effective, efficient, and relevant, and desired behavior more practical (Colvin,

Sugai, & Kame'enui, 1994).

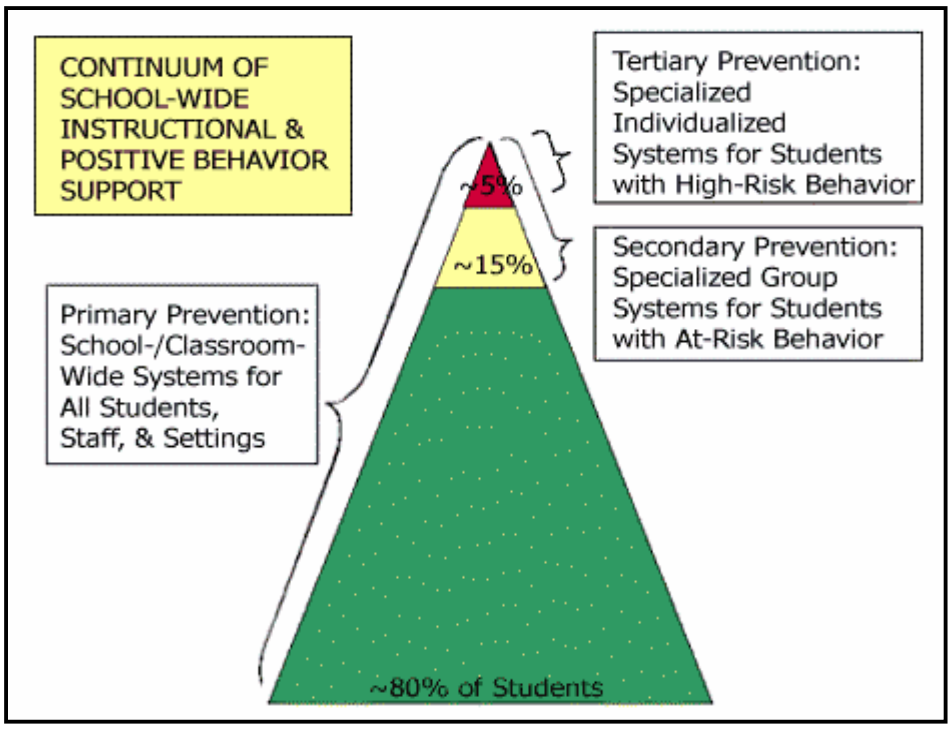

Figure 3. School-Wide Continuum of PBS. Used with permission from the OSEP Center on Positive Behavioral Intervention & Support, copyright 2002.

Primary prevention. Primary Prevention involves system-wide efforts to prevent and reduce new occurrences of problem behavior. As a system-wide primary prevention effort in schools, PBS consists of rules, routines, and physical arrangements that are developed and taught by school staff. Research by Horner (1994), O'Neil and colleagues (2000), and Sugai and Lewis-Palmer (1999) demonstrate that efforts to prevent serious problem behaviors are more successful if the entire school supports the adoption and use of evidence-based practices. Practices that meet these criteria include teaching and rewarding students for complying with a small set of basic rules for conduct. These universal school-wide rules translate into sets of expectations that differ according to various settings within the school. Many people hold the perception that student's already know and understand such rules, that they choose not to follow them, and they should be

punished. However, research and experience (Sugai et al., 1999) has taught us that systematically teaching behavioral expectations and rewarding students for following them is a much more positive approach than reactively waiting for misbehavior to occur before responding. PBS primary prevention works for over 80% of all students in a given school (Horner, 2000; Lewis & Sugai, 1999; Sugai et al., 2000). Putting into place systematic primary prevention strategies offers a system for documenting the occurrence of problem behaviors to determine which students need more intensive intervention. Preliminary results suggest that when schools implement primary level prevention efforts they identify fewer students as needing intensive behavior plans, and are more successful in their support of these students (Lewis, Newcomer, & Powers, 2003; Lewis-Palmer et al., 2002).

Secondary prevention. Secondary Prevention is designed to provide intensive or targeted interventions to reduce current cases of problem behavior and support students who are not responding to primary prevention efforts. Interventions within this level are more intense and often cater to targeted groups since a smaller number of students are at risk for engaging in more serious problem behavior and need a little more support. Secondary Prevention is designed for use in schools where there are more students needing behavior support than can be supported via intensive and individual tertiary support, and for students who are at risk of chronic problem behavior, but for whom high intensity interventions are not essential (Anderson et al., 1993; Horner et al., 1990). These interventions are an important part of the continuum of behavior support needed in schools, and there is a growing literature documenting that targeted interventions can be implemented by typical school personnel, with positive effects on up to 67% of referred students (Lewis & Sugai, 1999; Walker et al., 1996).

Individual PBS plans at the secondary prevention level involve a simple assessment to identify the function a problem behavior serves and a support plan comprised of individualized, assessment-based intervention strategies. Such strategies include a range of options such as: (a) teaching the student to use new skills as a replacement for problem behaviors; (b) rearranging the environment so that problems can be prevented and desirable behaviors can be encouraged; and (c) monitoring, evaluating, and reassessing this simple plan over time. Secondary prevention addresses the needs of students who require more support than is available for all students (primary prevention) and less support than is available for individual students who need flexible, focused, personalized interventions (tertiary prevention) (Sugai et al., 2000). This level of prevention is most effective when approached as a collaborative process by including stakeholders: (a) who know the student best; (b) have a vested interest in positive outcomes; (c) represent the range of environments in which the student participates; and (d) have access to resources needed for support. Effective secondary interventions allow teams to select features of the process to provide more focused behavior support to students that produce measurable changes in behavior and improvements in a student's quality of life (Koegel, Koegel, and Dunlap, 1996) through direct observation and frequent monitoring of progress.

Tertiary prevention. Tertiary Prevention focuses on the needs of individuals who exhibit patterns of problem behavior and aids reduction of complications, intensity, and severity of cases. This approach involves determining interventions individually, rather than determining interventions based on an established hierarchy (Scotti, Evans, Meyer, & Walker, 1991). This third level of prevention is most effective when there are positive primary (school-wide) and secondary (targeted) systems already in place. Furthermore, the design and implementation of individualized supports are best executed when they are conducted in a comprehensive and

collaborative manner involving both the student and people who know the student best. Comprehensive, multi-element interventions for the student are tailored to their specific needs and circumstances in a wrap-around manner to understand and intervene with the behavior.

Tertiary Prevention involves the process of FBA and creation of a Behavior Intervention Plan (BIP) comprised of individualized, assessment-based intervention strategies that include a wide range of options. These alternatives commonly include: (a) guidance or instruction for the student to use new skills as a replacement for problem behaviors; (b) some rearrangement of the antecedent environment so that problems can be prevented and desirable behaviors can be encouraged; and (c) procedures for monitoring, evaluating, and reassessing of the plan as necessary (Horner, 2000; Lewis & Sugai 1999; Sugai et al., 2000; Weigle, 1997). The main difference between tertiary and the other levels of PBS is the focus of the interventions (i.e., identification of goals, data collection and analysis, summary statements, multi-element plans, and a monitoring system) that addresses the needs of individual students. Even national mandates define such conditions in which individual systems should be used to address behavioral-related concerns (i.e., IDEIA requires that a FBA be completed and a BIP be implemented when disciplinary sanctions result in extended periods and when a student is removed from an environment or suspended (IDEIA, 34 C.F.R. 300.520 (b) (c), 2004).

The need for individual systems can be minimized by utilization of broader systems. However, some students require a greater degree of individualized support. Tertiary prevention interventions are implemented through an adaptable, but methodical, process that entails: (a) identifying goals of intervention; (b) gathering relevant information; (c) developing summary statements; (d) generating behavioral support plans; and (e) implementing and monitoring outcomes (Crone & Horner, 2000). Individualized PBS focuses not only on decreasing specific

behaviors of concern, but also building adaptive and replacement skills to improve the individual's overall quality of life (Anderson et al., 1993; Horner et al., 1990). Effective tertiary interventions produce measurable changes in behavior and the individual BIPs include objective methods for evaluating these outcomes. The PBS systems approach to prevention, as illustrated in Figure 4, impacts behavior at three systemic behavioral tiers: universal, group, and individual support (Lewis & Sugai, 1999; Sugai et al., 1999; Walker et al., 1996).

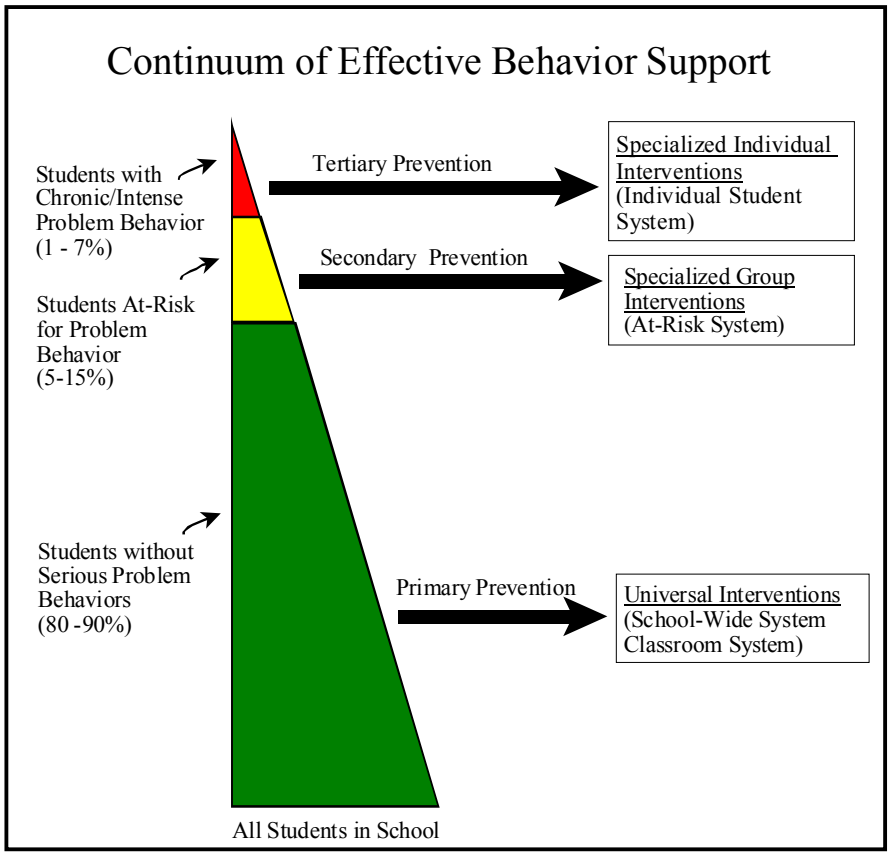

Figure 4 *PBS Prevention Support Tiers*. Used with permission from the OSEP Center on Positive Behavioral Intervention & Support, copyright 2002.

District-Wide PBS

Ongoing and amendable school-wide PBS in a school entails systemic support through a unified district approach, in which access to resources, implementation efforts, and

organizational management capabilities can reach greater levels. There are four components for successful district-wide implementation: (a) a leadership team to actively coordinate implementation efforts; (b) an organizational umbrella composed of adequate funding, broad visibility, and consistent political support; (c) a foundation for sustained and broad-scale implementation established through a cadre of individuals who can provide coaching support for local implementation, a small group of individuals who can train teams on the practices and processes of school-wide PBS, and a system for on-going evaluation; and (d) a small group of demonstration schools that documents the viability of the approach within the local fiscal, political and social climate of the district (Carr et al., 1999). Collaborating leadership teams are needed at both the school and district-wide level to lead an effective assessment and action planning process to increase training, coaching, evaluation, and coordination capacity. Personnel on the leadership team should include individuals whose roles, responsibilities, and activities are associated with the: (a) prevention of the development and occurrence of problem behavior; (b) development and maintenance of behavior; and (c) management and evaluation of resources related to the provision of behavioral supports (Ayres et al., 1994; Staub & Peck, 1995).

Systems of school-wide PBS have been adopted, sustained, and expanded in elementary and middle schools throughout the country. To date, over 3,800 schools in the United States across 37 states actively implement school-wide PBS. In addition, a 30-year history of research from model demonstration projects and individual school efforts demonstrate an increasingly clear picture about the benefits of school-wide PBS (Horner & Sugai, 2000). As the behavioral culture of schools improve; individual behavior improves, academic gains are experienced, and more time is directed toward academic instruction (Scott & Nelson, 1999). Evaluation studies of school and district-wide behavioral support programs have shown improved creative use of

resources, school performance, collaboration among interagency providers and families, and stimulation of appropriate behaviors by all students (Wigton et al., 1995). Though appealing positive outcomes may transpire rapidly, sustaining success does not happen overnight. Researchers and practitioners estimate that it can take several years for significant improvement to be fully evidenced and embedded within the school's culture (Center on Positive Behavioral Interventions & Supports, 2001; Sugai, Horner et al., 1999).

Functional Assessment and Intervention Planning

Functional assessment has been used for years in a variety of disciplines (e.g., vocational education, physical therapy, chemistry, and physics). In education, principally special education, functional assessment had its beginning in the 1960's in applied behavior analysis (Bijou & Baer, 1961, 1978; Bijou, Peterson, & Ault, 1968; Bijou et al., 1969). In the past most of this work had been conducted with individuals with severe developmental and intellectual disabilities (Blakeslee, Sugai, & Gruba, 1993; Lohrman-O'Rourke et al., 1999). Presently, a growing body of research and applications focuses on individuals with normal intellectual ability (Broussard & Northrup, 1995; Dunlap, Kern-Dunlap, Clarke, and Robbins, 1991; Dunlap et al., 1993; Dunlap et al., 1996; Kern et al., 1994; Lewis & Sugai, 1993, 1996; Umbreit, 1995; Volmer & Northrup, 1996). Further, functional assessment is used frequently among students with severe disabilities to eliminate problem behaviors (Broussard & Northup, 1995) and with higher functioning students, including those who have emotional and behavioral problems (Dunlap, White, Wilson, & Panacek, 1996; Kern, Dunlap, Clark, & Childs, 1995; Lewis-Palmer, 1998). In application, the overarching emphasis is to design student-specific interventions that not only discourage inappropriate behaviors, but also teach alternative behaviors, and provide the student with the opportunity and motivation to engage in such behavior.

Functional assessment is a broad term referring to the information gathering and hypothesis development process to maximize the effectiveness and efficiency of behavioral support (O'Neil et al., 1997). Identification and confirmation of the function of behavior are important to intervention planning in order for it to be efficient, effective, and relevant. After a thorough functional analysis is completed, interventions are determined based on the function of the excess behavior rather than the form (Eifert, Evans, & McKendrick, 1990; Wacker et al., 1990). Specifically, a function-treatment matching approach is applied and functional replacement skills are taught utilizing an "educative approach" (Meyer & Evans, 1989). Schools should be commended for their efforts to adopt a function-based approach to behavior support programming; for it has a long history of theoretical development, research validation, and practical applications. Functional assessment of behavior has an instructional emphasis (Colvin, Sugai, & Patching, 1996; Kame'enui & Carnine, 2002; Kerr & Nelson, 2002; Sugai, 1992) in which social skills are taught in the same way as academic skills, and the reduction of problem behaviors is considered a problem of teaching functional replacement behaviors. It also has a functional perspective (Horner, 1994; O'Neill et al., 2000; Sugai, Lewis-Palmer, & Hagan-Burke, 1999-2000), in which the factors that maintain observed problem behaviors are used directly and primarily to build effective, efficient, and relevant student intervention plans.

Unlike traditional behavioral management, which views the individual as the problem and seeks to "fix" the student by quickly eliminating the challenging behavior, function-based behavioral support instead views systems, settings, and lack of skill as parts of the "problem" and then work to address these variables (Warger, 1999). This functional analysis of behavior can be defined as determining the antecedent and consequence variables that maintain or change a particular behavior (Baer, Wolf, & Risley, 1968; Carr et al., 1994; Carr, Robinson, & Palumbo,

1990; Durand, 1987; Snell, 1988). As a general rule, antecedent events trigger or bring about behavior, and consequence events affect the probability that a behavior will occur (reinforcement) or not occur (punishment). Functional analysis of behavior can help practitioners and parents understand why challenging behavior occurs and its function or purpose for the individual. The function-based approach to behavior support programming is founded theoretically on a behavior analytic tradition of teaching and learning (Sugai, Lewis-Palmer, Hagan, 1998) and is an integral component of PBS.

Functional Behavior Assessment

Among the most important changes in applied behavioral analysis (ABA) in the past 20 years has been the development of FBA (*Journal of Applied Behavior Analysis*, 1994). FBA is based on the theories of ABA, and is concerned with the analysis and modification of human behavior. Once the function of the behavior is understood, PBS may be employed to help the student meet his/her needs in a more appropriate, acceptable manner. A fundamental message from this advancement is that the design of successful behavior change interventions requires identification of the events that reliably predict and maintain problem behaviors (Carr, 1994; Horner, 1994; O'Neill et al., 1997; Repp, 1994; Sugai, Lewis-Palmer, & Hagan, 1998). Traditionally, problem behaviors have been viewed as inherent within the child, and the indicative emphasis has been on the type of problem behavior or the link with disability type. The FBA approach provides a systematic and informed way for targeted interventions to be created, implemented and monitored.

FBA is a systematic process of identifying problem behaviors and the environmental factors and setting events that reliably predict occurrences and non-occurrence of those behaviors, maintaining the behaviors across time, and guiding the development of effective and

efficient behavior support plans (Carr et al., 1997; Foster-Johnson & Dunlap, 1993; Horner, 1994; O'Neill et al., 1997; Sugai, Horner, & Sprague, 1999; Sugai, Lewis-Palmer, & Hagan, 1998; Tilly et al., 1998). A functional analysis of behavior has also been described as a process for determining the antecedent and consequence variables that maintain or change a particular behavior (Baer, Wolf, & Risley, 1968; Carr et al., 1994; Carr, Robinson, & Palumbo, 1990; Durand, 1987; Snell, 1988). FBA looks beyond the obvious view of the behavior by identifying biological, social, affective, and environmental factors that initiate, sustain, or end the behavior in question. FBA emphasizes environmental redesign (changing aspects of the setting), curriculum redesign (teaching new skills), modification of behavior (teaching and changing student and adult behavior), and removing rewards that maintain problem behaviors (Carr et al., 1994; Luiselli & Cameron, 1998; O'Neill et al., 1997).

FBA includes the observations and input of people who know the student to identify and define the problematic behavior, actions or events precede the behavior, those that follow the behavior, and how often the behavior occurs (Horner, 1994). FBA is flexible in that selected interventions are linked to an informed hypothesis and revised as needed. It is important to note that FBA is not a set of forms or static products, but a process of understanding behavior in the context in which it is observed and guiding the development of positive behavioral interventions. FBA identifies specific relationships between behaviors and the circumstances that trigger behaviors that impede a student's ability to learn (Lane, Umbreit, & Beebe-Frankenberger, 1999; O'Neill et al., 1997; Reid, 2000; Sugai, Lewis-Palmer, & Hagan-Burke, 1999-2000). This broader perspective offers an enhanced understanding of the function or purpose behind student behavior. Comprehensive components of FBA include (Horner, 1994; O'Neill, Horner, Storey, Albin, Sprague, Storey, & Newton, 1997; Sugai, Palmer, & Hagan, 1999):

- Clear and measurable description of the challenging behaviors;
- Identification of the events, times, and situations that predict when the challenging behaviors will and will not occur;
- Identification of the consequences that maintain the challenging behaviors;
- Identification of possible setting events or conditions that make the problem behavior worse;
- Development of one or more summary statements or testable hypotheses that describe specific behaviors, specific types of situations in which they occur, and the reinforcers that maintain the behaviors in that situation;
- A statement of function (purpose) of behavior; and
- Collection of direct observation data to confirm a testable hypothesis that support these summary statements for incorporation into a student intervention plan.

FBA steps/process. Individual systems of PBS are developed through a flexible, but systematic, process of FBA and comprehensive intervention. A varying number of procedures exist for conducting a FBA; nevertheless, a quality assessment should end with three main outcomes. The first end product is hypothesis statements that include: operational definitions of the problem behavior(s), descriptions of the antecedent events that reliably predict occurrence and nonoccurrence of the problem behavior, and descriptions of the consequence events that maintain the problem behavior(s) (Center for Effective Collaboration and Practice, 1998). The second and third end results are direct observation data supporting these hypotheses and a behavior support plan respectively. The essential steps in the FBA process (O'Neill et al., 1997; Sugai, Lewis-Palmer, and Hagan, 1998; Tilly et al., 1998) converge and expand on four principal factors: (a) setting events/establishing operations, (b) antecedent events, (c) problem behaviors, and (d) consequence events:

- Collect information regarding conditions under which problem behavior is and is not observed and more appropriate behavior is required to determine function of problem behavior;
- Develop testable (manipulable) hypotheses or summary statements and indicate possible functions;
- Collect direct observation information data to confirm summary statement;
- Identify desired and acceptable replacement behaviors based on summary statement and behavior function;
- Develop BIP (student support plan) based on summary statement and behavior function;
- Develop comprehensive supports (implementation scripts) to ensure high fidelity implementation of student intervention plan; and
- Develop on-going monitoring system to collect information on effectiveness and efficiency of behavior support plan and redesign based on evaluation information.

PBS utilizes information from FBAs to guide the design of educational environments that support and encourage adaptive behavior (Sugai, Lewis-Palmer & Hagan, 1998) with hypothesis statements typically narrowed down to two primary behavioral principles, positive and negative reinforcement. Research and experience has demonstrated that intervention plans stemming from the knowledge of why a student misbehaves based on a FBA are extremely useful in addressing a wide range of school-related behavioral problems. Function-based intervention plans are based on information about the nature of the problem behavior and the environmental context in which the problem behavior is observed to improve the effectiveness, relevance, and efficiency of intervention support plans (Carr et al., 1997; Foster-Johnson & Dunlap, 1993; Horner, 1994; O'Neill et al., 1997; Sugai, Horner, & Sprague, 1999; Sugai, Lewis-Palmer, & Hagan, 1998;

Tilly et al., 1998). Data that demonstrate the effect of a selected intervention determine the need to revise the written plan of behavior support. Ultimately, a functional-based student intervention plan will describe: (a) what behaviors are expected of the student and how they will be taught and supported; (b) the changes in the environment that are designed to alter a student's behavior; (c) what adults will do differently in an effort to alter what the child does; and (d) what academic, schedule, etc., changes will be made to support new behavior.

Behavioral Intervention Plans

A BIP is a written, individualized support plan that is based on a functional assessment of a student's behavior. FBA results are used to develop a BIP which consists of four basic manipulations: (a) procedures for teaching replacement behaviors (teaching strategies), (b) manipulations involving antecedent events (antecedent strategies), (c) manipulations involving consequence events for positively reinforcing appropriate behaviors and consistently responding to occurrences of problem behavior (setting event strategies), and (d) manipulations that prevent or neutralize setting events (consequence strategies). Devised interventions typically involve multiple components to address the wide array of behavioral and lifestyle issues targeted for change (e.g., Carr & Carlson, 1993; Kemp & Carr, 1995) and delineate: (a) who does what strategies when, where, how often, and why; (b) how emergency or crisis situations will be handled; and (c) how implementation and effectiveness will be monitored. A comprehensive BIP will include: (a) specific descriptions of typical routines and most difficult problem situations for the student; (b) a monitoring and evaluation plan; (c) identification of the case manager who will be responsible for the overall coordination of the BIP; and (d) identification of individual responsibilities for data collection, specific interventions described in the plan, and reporting

(Carr et al., 1997; Foster-Johnson & Dunlap, 1993; Horner, 1994; O'Neill et al., 1997; Sugai, Horner, & Sprague, 1999; Sugai, Lewis-Palmer, & Hagan, 1998; Tilly et al., 1998).

Unlike common interventions that focus on reactive, consequence manipulations (e.g., timeout, behavioral contracts), FBA-based BIPs consider intervention components that are instructionally focused (i.e., teaching acceptable and desired replacement behaviors), prevention focused (e.g., neutralizing or eliminating the conditions that trigger problem behaviors or make them worse or more likely), and environmentally-based (e.g., rearrangement of the problem context) (Horner, 1994; Sugai, Lewis-Palmer, & Hagan, 1998). The ultimate intention of the FBA process is to increase the efficacy of behavior support plans for individual students by selecting an appropriate functional replacement behavior, directly teaching that behavior, and facilitating access to the same functional outcome when the student displays the desirable replacement behavior. While FBA-influenced BIPs are used frequently to address both identified academic and behavior concerns (Broussard & Northup, 1995) and with students with and without identified disabilities (Dunlap, White, Wilson, & Panacek, 1996; Kern, Dunlap, Clark, & Childs, 1995; Lewis-Palmer, 1998; Todd, Horner, & Sugai, 1999; Umbreit, 1995), schools continue to struggle with a systematic and efficient means of incorporating FBA into their on-going activities and, as a result, often turn to outside experts for assistance.

PBS Implementation and Planning Features

Foundations and Readiness

The implementation of school-wide PBS typically requires a period of three-to-four years in order to fully evidence intended program goals (Center on Positive Behavioral Interventions & Supports, 2001). Effective school programs typically have clear implementation criterion and are systematically monitored to ensure that they are carried out as planned. Patton (1990) advocates

that implementation evaluation may be the most important type of evaluation to carry out, since it is important to verify that a program has been implemented as originally planned. Before one can assess the desired outcomes, prior needs assessment and implementation evaluation pre-planning must take place. PBS needs to be designated as one of the top three building improvement goals to receive major attention and focus amongst stakeholders (Sugai, 1996).

To begin a school-wide program a school first must demonstrate a readiness for embracing the initiative. As with any effort to create cultural change in a school system, the initial step is to gain consensus on problem identification and execution issues. The key and challenge is not merely problem identification; but in addition, securing support from the same personnel who want to do something about it. With acceptable consensus (i.e., $\geq$80%) to move forward, further assessments should be conducted as applicable to reach agreement on a set of strategies to address the problem(s). Fidelity of implementation is paramount and is the heart of this research, which is why it is important for all school personnel (certified and classified) to have input and agree on strategies selected for implementation. School-wide implementation requires a school's faculty to have an openness and willingness to embrace the core values of PBS and to commit to collect data and use data-based procedures.

Administrative support and active participation must be evident by identifying an internal leader (or leaders) as a PBS coach to lead the initiative. Formation of key PBS teams (e.g., leadership team, teacher assistance team, and behavioral support team), depending on the size of the school or district, is crucial and time allocated for these teams to meet on a regular basis for staff training and technical assistance will enhance implementation sustainability. Understanding that each school community varies, PBS programs are not prescriptive and adaptations will occur when addressing the culture of the receiving setting. Nonetheless, there are key implementation

components selected by program developers that should be integrated into one's school-wide PBS program to preserve the integrity and effectiveness of the interventions employed (see Table 3). Since PBS implementation is nonlinear, program stakeholders must acknowledge through evaluation what they were trained to do and what vital components are essential for implementation as guided by researcher recommendations and the program's theory.

Table 3

PBS Researcher Implementation Recommendations

PBS Blueprint[1]	Promote prevention; Integrate academic and behavioral programming; Consider all students; Use evidence-based practices and systems; Use data; Work as team; Establish a continuum of support; Focus on outcomes; Emphasize a systems approach.
University of Oregon[2]	Establish a PBS leadership team; Secure school-wide agreements and supports; Establish a data-based action plan; Arrange for high fidelity implementation; Conduct formative data-based monitoring.
Ohio Training Resources for PBS[3]	Do less, but do it better and longer; Invest in what works and in clear and durable results; Attend to individual and cultural differences; Make informed decisions; Work together; Invest in enhancing local competence.
National Center for PBS[4]	Give priority to prevention; Focus on whole school; invest in evidence-based practices; Lead with a team; Emphasize data-based evaluation.

Note. [1]Sugai (2002); [2]Sugai (2003); [3]ODE (2003); [4]Lewis & Sugai (1999); Todd, Horner, Sugai, & Sprague (1999); Sugai et al. (2000).

Key Implementation Components

As a continuum, four intervention change elements characterize PBS: (a) change of systems (i.e., policies, structures, routines), (b) change of environments, (c) change of student and adult (i.e., parent, teacher, staff) behavior, and (d) change in appreciation of appropriate behavior in all involved individuals (i.e., student, staff, family, etc.) (Sugai, Horner, Dunlap, et

al., 2000). As previously discussed, the application of FBA and emphases on environmental redesign, curriculum redesign, modification of behavior, and removing rewards that maintain problem behaviors are critical (Carr et al., 1994; Luiselli & Cameron, 1998; O'Neill et al., 1997). The interwoven relationships of PBS systems, data, and practices supporting the decision-making continuum related to staff and student behavior have been illustrated in Figure 2.

Schools must establish a commitment to an agreed upon approach to discipline and acquire three or more years of funding to support the school-wide positive reinforcement system initiative (Sugai, 1996). In establishing priority and mission via a positive statement of purpose, schools must invest in capacity building, which includes prevention, whole school embracement, and employment of research-validated practices (Sugai & Horner, 2002). In order to establish school-wide behavioral expectations several tasks must be completed: (a) a small number of positively stated expectations need to be generated for all students and staff that clearly define three-to-five universal beliefs in simple, succinct, and positive ways; (b) procedures for explicitly teaching these expectations to students across all settings needs to be established so that all students know exactly what is expected of them; (c) a continuum of procedures for encouraging displays and maintenance of these expected behaviors must be performed in order to extensively communicate established universal expectations on a school-wide basis; (d) a continuum of procedures for discouraging displays of rule-violating problem behaviors is encouraged; and (e) procedures for monitoring implementation and evaluating progress of the effectiveness of the discipline system through a team process on a regular and frequent basis are a necessity (Sugai & Lewis, 1996). Effective evaluation and continuous improvement may take place during implementation by performing a self-assessment, examining building behavioral support needs, and making adaptations based on team-based planning and data.

Systems Approach Emphasis

At all levels of implementation of PBS, four defining supports are indicated throughout the literature to address the behavioral support needs of all students within a setting: (a) school-wide, (b) specific setting, (c) classroom, and (d) individual support (see Figure 5). School-wide systems of support entail implementation procedures and practices that are intended for all students, all staff, and all settings in which a building-wide team oversees all development, implementation, modification, and evaluation activities. Specific setting support is a team-based mechanism for monitoring specific settings that exist within the school environment (Todd, Horner, Sugai, & Sprague, 1999) where strategies are developed that prevent or minimize their occurrence. Classroom support involves processes and procedures of the individual classrooms where teachers structure learning opportunities that correspond to the PBS features and

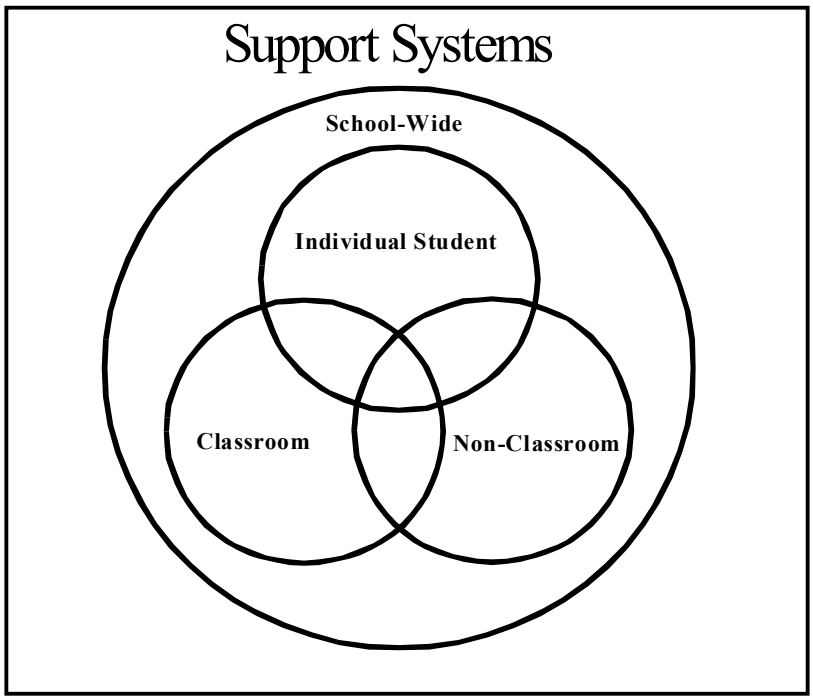

Figure 5. *PBS Systems of Support*. Used with permission from the OSEP Center on Positive Behavioral Intervention & Support, copyright 2002.

procedures used building-wide. Individual student support provides immediate, relevant, effective, and efficient responses to students who present the most significant behavioral challenges. Implementation processes and procedures for specially designed and individualized interventions for the estimated 1-7% of students who present the most challenging behavior (Horner & Sugai, 2002) need to be established.

Leadership Team Building

A leadership team is needed for implementation at the building level to lead the assessment and behavioral planning process to increase capacity in four prime areas: training, coaching, evaluation and coordination capacity (Horner, Todd, Lewis-Palmer, Irvin, Sugai, & Boland, 2004) (see Table 4). To facilitate and assist the leadership team's efforts, PBS implementation must have: adequate and sustained funding support; regular, wide, and

Table 4

Leadership Team Capacity Building

Training Capacity	refers to the school's ability to self-assess for specific programmatic and staff development needs and objectives, develop a training action plan, invest in increasing local training capacity, and implement effective and efficient training activities.
Coaching Capacity	refers to the school's ability to organize personnel and resources for facilitating, assisting, maintaining, and adapting local school training implementation efforts. Resources are committed for both initial training and on-going implementation support.
Evaluation Capacity	refers to the school's ability to establish measurable outcomes, methods for evaluating progress toward these measurable outcomes, and modified or adapted action plans based on these evaluations.
Coordination Capacity	refers to the school's ability to establish an operational organization and "rhythm" that enables effective and efficient utilization of materials, time, personnel, etc. in the implementation of an action plan.

meaningful visibility; and relevant and effective political support (Sugai & Pruitt, 1993). At all levels in the system, active administrator support and participation are essential for overall school-wide implementation. With adequate funding, visibility, and political support provided to the building leadership team, implementation training, coaching, and evaluation are possible via active coordination (see Figure 6). The leadership team formed should be composed of equal stakeholder representation, meet regularly (at least quarterly), and designate a coordinator to oversee and facilitate school-wide implementation (Crone & Horner, 2003). Additional leadership team functions entail: (a) development and dissemination of PBS policy establishing visibility (i.e., website, newsletter, conferences, TV); (b) development and coordination of a 3-5 year action plan to build capacity for locally delivered coaching and local staff development and

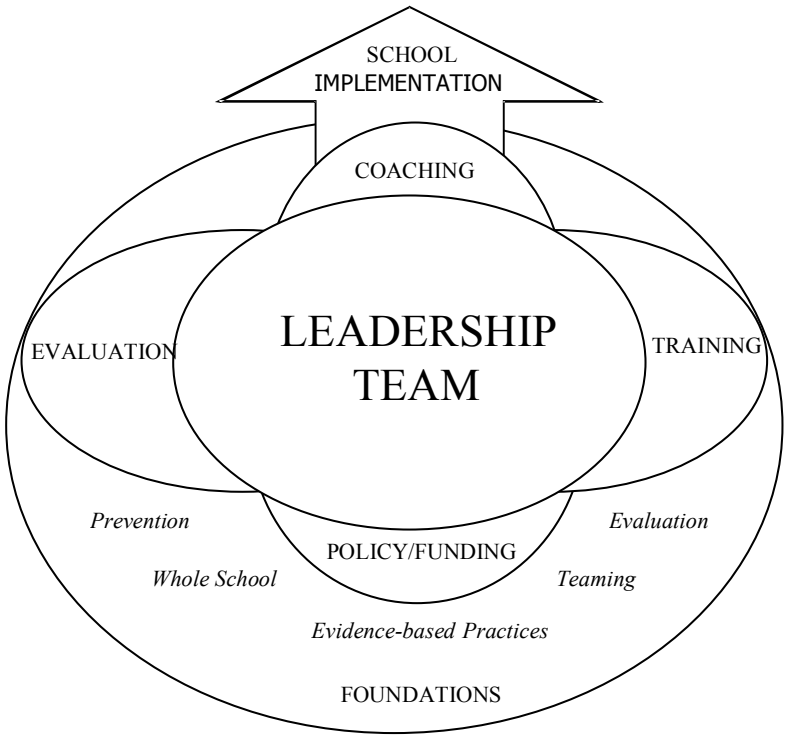

Figure 6. *Active Leadership Team Coordination.* Used with permission from the OSEP Center on Positive Behavioral Intervention & Support, copyright 2002.

training; (c) securing stable funding for efforts for on-going evaluation of implementation and impact of training and coaching network; (d) completion of a self assessment for development and implementation of an annual action plan; and (d) dissemination and celebration of outcomes and accomplishments (Sugai, Horner, Dunlap et al., 2000).

Barriers That Reduce Implementation Quality

Barrier identification of contextual factors (i.e., pre-planning, implementation support system and environment, implementer factors, program characteristics) that may affect program implementation need to be identified (Gottfredson, 1984) with adaptations performed. External contextual factors to the PBS program theory that may also affect the implementation process or program quality include the classroom, school, district, and community (Weiss, 1997). Barriers specific to successful PBS program implementation (see Table 5) must also be considered and addressed to provide the necessary infrastructure and climate to facilitate successful program implementation. Consideration of adaptations and administrative supports must take place to cater to classroom support, application, community involvement, and technical assistance queries (Luiselli, Putnam, & Sunderland, 2002). Data management and action planning may become a challenge with regard to data collection and analysis of specific PBS evaluation measures. A final program implementation barrier pertains to the enhancement of the systemic use of school-wide PBS, which involves overcoming the rigors encountered with sustaining effective behavior support systems and taking the program to scale.

Implementation Efficacy and Evaluation

School personnel are cautioned not to make the mistake of implementing a school-wide PBS system of discipline without monitoring its effectiveness on a regular and frequent basis (Sugai, Lewis-Palmer & Hagan-Burke, 1999). This evaluation is needed to prevent ineffective

Table 5

Barriers to Implementation

Pre-Planning
- Lack of awareness;
- Lack of buy-in;
- Absence of incentive to change; and
- History of implementation.

Implementation Support System
- Insufficient pre-planning;
- Inadequate provision of training (i.e., implementers are unprepared);
- Insufficient ongoing supervision for implementers;
- Poor communication between outside training system and implementers; and
- No system in place for addressing ongoing needs of implementers or problems encountered.

Implementation Environment
- Principal leadership is inadequate;
- Program is not integrated with other aspects of schooling or curriculum;
- Implementers are isolated or unsupported;
- Program does not receive adequate attention because of competition with another curriculum;
- Insufficient resources allocated (e.g., classroom time, physical space, and budget);
- Overall school climate is poor (e.g., low collegiality); and
- Classroom climate impedes program implementation.

Implementer Factors
- Implementers do not feel prepared to deliver the intervention;
- Implementers are overstressed and under-supported; and
- Implementer's educational philosophy or teaching style is not consistent with the intervention.

Program Characteristics
- Poor quality of materials;
- Inappropriate for audience; and
- Too narrow to address problem.

Note. From "The Study of Implementation in School-Based Preventive Interventions: Theory, Research, and Practice," by Greenberg, Domitrovich, Graczyck, and Zins (2004). Reprinted with permission.

practices from wasting time and resources, improve the efficiency and effectiveness of current

procedures, eliminate elements of the system that are ineffective or inefficient, and to make

modifications before problem behavior patterns become too durable and unmodifiable (Lohrman-O'Rourke, Knoster, Sabatine, Smith, Horvath, & Llewellyn, 2000). Behavioral practices and systems need to be focused on measurable and relevant outcomes to guide effective and efficient identification, implementation, and activities that promote sustainability. This requires formal attention to implementation supports for teachers, family members, administrators, and other support staff. Key components of a school-wide PBS program that are evident after successful and sustained implementation include (Lewis & Sugai, 1999):

- School-wide discipline practices and procedures;
- Active leadership and ongoing participation of building principal;
- Cultivation of staff commitment for consistent implementation;
- Team-based planning and problem-solving;
- Use of building-based discipline and academic data to make decisions;
- An instructional approach to behavior and classroom management;
- Classroom management and behaviorally based interventions;
- Functional assessment-based behavior support planning;
- Comprehensive plans for individual students with intensive needs;
- Active participation of families, students and teachers; and
- Integration with mental health and other community supports.

Classroom Organization and Management Program

The Classroom Organization and Management Program (COMP) is a behavioral management program that addresses underlying needs of teachers that is directed toward improving their classroom management skills (Everston & Harris, 2003). Through planning, implementing, and maintaining effective classroom practices, the program seeks to improve

student task engagement and reduction of inappropriate and disruptive behavior through well-planned and appropriate academic tasks and activities (Everston, 1998). COMP is based on the findings of 12 studies in general and special education resource settings, grades K-12, that span 15 years and involve over 4,000 hours of observation in 581 classrooms in 100 schools (Everston, Emmer, & Worsham, 2000). Since 1989 the program has served over 60,000 teachers and administrators in 33 states and has yielded evidence of a decrease in student misbehavior, a greater personal satisfaction in teaching, and increases in student engagement and academic achievement (Everston, Emmer, Clements, & Worsham, 1997). The program is a research-based professional development curriculum that helps educators' learn to craft smoothly running learning environments, creating the conditions for learning, fostering student achievement and reducing discipline problems. Effective classroom management approaches from COMP may easily be selected and embedded within a district's behavioral support program (i.e., secondary prevention) in view of the fact that they have been shown by Everston and Harris (2003) to enhance the PBS initiatives within individual teacher classrooms.

Creating Conditions for Learning

The four major premises of COMP are: (a) effective classroom management is proactive, not reactive; (b) in effective classrooms, management and instruction are interwoven; (c) students are active participants in the learning environment; and (d) teachers working together synergistically help one another (Everston, 2003). Such practices provide a framework for order and organization in classrooms and afford opportunities for students to begin to manage their own learning opportunities. Colvin, Kame'enui, and Sugai (1993) concur and assert that good classroom management is the underpinning for quality instruction and student achievement, and requires an ongoing process of careful development through planning, implementation, and

maintenance. COMP provides training modules in seven individual key areas of classroom management and each area includes a self-assessment checklist, a summary of related research, suggestions of ideas that work, case studies for problem solving, and relevant activities. These learning tools engage teachers in group sharing activities to learn to examine effective management practices, reflect on their own current classroom practices, discuss and develop ideas with other teachers, and modify and adapt their own practices (Everston, 2003).

Program Validity

COMP was developed from a series of studies that first identified differences in teacher management practices associated with student outcomes of task engagement, appropriate behavior, positive attitude, and achievement (Everston, 1998). COMP assumes that academic and social behaviors are developmental and that teachers must successfully address both academic and social dimensions within their classrooms (Emmer, Everston, Sanford, Clements, & Worsham, 1984). COMP is aligned with the major tenets of PBS in that it embraces a systematic, research-based, common sense approach to effective classroom management that increases academic achievement and reduces discipline problems and office referrals. This program represents a proactive approach for guiding teachers to create effective learning environments for all students by learning about research on successful practices in actual classrooms, reflecting on and analyzing their own classrooms, and planning specific strategies (Everston & Harris, 2003). Based on the findings of extensive studies, COMP received backing by the US Department of Education's National Diffusion Network for three claims of effectiveness (Everston, Emmer & Worsham, 2003). In addition, the program is validated for grades K-12 in both general and special education classes, prompting significant changes in student behavior, teacher practices, and student academic achievement.

PBS Theory Component

Theory-Driven Evaluation (TDE) is an appropriate method to authenticate the preventive dimensions of PBS and their underlying mechanisms (Chen & Rossi, 1992). Chen and Rossi (1983) also note that the use of theoretical models in impact assessment can heighten the power of experimental designs and compensate for some deficiencies of quasi-experimental designs. Theoretical models of implementation processes are examined because these processes can become a major obstacle to implementing fully effective programs. The components of PBS, which are based on applied behavior analysis theory, are backed by applied research indicating their efficacy with numerous populations (e.g., Anderson et al., 1993; Bickel & Bickel, 1986; Dickie et al., 1991; Ford, 1984; Kemp & Carr, 1995; Meyer & Evans, 1989; White, 1988). The theoretical underpinning of PBS behavioral management techniques is the integration of behavioral science, practical interventions, social values, and a systems perspective.

The conceptual framework for PBS is based on the research of George Sugai, Rob Horner and colleagues at the Center on Positive Behavioral Interventions and Supports in Oregon. Given the effect sizes of studies in which PBS has been utilized (Colvin, Kame'enui, & Sugai, 1993; Colvin, Sugai, Good, & Lee, 1996; Lewis, Colvin, & Sugai, 2003; Lewis, Sugai & Colvin, 1998; Taylor-Greene et al., 1997; Sugai, Sprague, Horner, Walker, 2000; Todd, Horner, Sugai, Sprague, 1999) and the significance of functional analysis and proactive intervention methodologies to increase the achievement of important social and learning outcomes while preventing problem behavior of students (Lewis & Sugai, 1999; Sugai & Horner, 2002), PBS has been selected by many school districts across the United States as the behavioral support program of choice for its application as a behaviorally-based systems approach. This proactive program is based on research regarding behavior modification theory in the context of the

settings where it occurs (Sugai & Horner, 1994) (see Table 6). In application of this theory, schools employ a dynamic process of assessment, intervention and evaluation resulting in effective behavior support that is incorporated into a district or school-wide behavioral support program.

Table 6

Overview of the Basic Tenets of PBS Theory

Tenet	Description
Broad emphasis	Focuses on lifestyle concerns (e.g., happiness with amount of friends, social outings, independence), not just excess behavior.
Long-term goals	Considers long-term goals and outcomes over the span of years rather than on short-term behavioral outcomes.
Functional analysis	Determines function of behavior rather than determining a behavior program based on topography of behavior.
Individuality and effectiveness	Interventions are based on individual needs and effectiveness rather than hierarchies of intervention strategies.
Teach functional skills	Teaches useful, functionally equivalent skills to replace excess behaviors.
Positive (reinforcing)	Utilizes reinforcement procedures whenever possible.
Antecedents	Focuses on antecedent procedures to prevent the occurrence of excess behaviors (e.g., rather than consequence procedures to punish the behavior), including curricular adaptations.
Multicomponent intervention	Interventions may include antecedent intervention procedures, consequence procedures, social skills training, etc.

PBS is based on behavioral theory; whereby, problem behavior continues to occur because the child getting something positive or escaping something negative consistently follows it (Lewis & Sugai, 1996). By focusing on the contexts and outcomes of the behavior in order to determine the functions of the behavior, the problem behavior becomes less effective and

efficient, and the desired behavior becomes more functional, which exemplifies this premise. This often involves changing systems, altering environments and teaching new skills, as well as focusing on the problem behavior itself (Eber, Horner, Lewandowski, Bohanan, & Hyde, 2005). Everything considered; PBS is a function-based approach to behavior support training that is founded theoretically on a behavior analytic tradition of teaching and learning.

Theory-Driven Evaluation of Program Implementation

The third and final section of the literature review consists of three central areas of discussion, in which the significance, definition, and application of theory-driven program evaluation will be examined. First, a conceptual model for program evaluation will be presented. Next, an extensive review of strategies for effective program delivery will be delineated, including components necessary for program implementation. The broad principles of theory-based evaluation (causative/prescriptive, planned intervention, planned implementation support system) as well as the underlying theoretical framework will be fully explored. Finally, an overview of measures, barriers, and discrepancies related to the evaluation of school-wide PBS will be provided.

Program Theory: A Conceptual Model

Evolution of Program Evaluation

Up to the mid-to-late 1980s the primary interest of the program evaluation field was the correct measurement of program outcomes, in which research questions focused in a direct manner on the determination of whether programs worked or not. Since then, outcome evaluation emphasizing internal validity was developed and refined. The occurrence of thorough methodological procedures to promote the validity of outcome evaluations began to help support the field as a whole. Unfortunately, the study of implementation evidenced little exploration and

use until such validation issues were resolved. By the late 1980s, a paradigm shift within the field began to gain momentum. This shift was fueled by the growing awareness of the need to identify factors that enhance or mitigate a program's effects on targeted outcomes (Gottfredson, 1984; Scheirer, 1987). This trend generated interest in factors that affect successful program implementation. Professionals realized that even high-quality programs would not produce positive outcomes unless they were implemented with integrity. Scheirer (1994) has described process evaluation that targets implementation issues as a compliment to outcome evaluation acknowledging that outcome evaluations simply assess program effectiveness. Harachi, Catalano, Haggerty, and Fleming (1999) note that process evaluations measure two core aspects of program delivery: (a) the scope of implementation (i.e., did a sufficient number of targeted participants actually receive the intervention?) and (b) the extent of implementation (i.e., were the intended number of program components delivered as planned?). Process evaluations also take into account whether other factors might have contributed to the degree of discrepancy in the scope and extent of program implementation, by which a determination of implementation integrity can be made (Bickman, 1987).

Implementation Perspective

During the advancement period of program evaluation, Maher and colleagues (Maher & Bennett, 1984; Maher & Kratochwill, 1980; Maher et al., 1984) described implementation issues in considerable detail. From their perspective, the basis for implementation is program design that includes the consideration of the physical, informational, technological, financial, and personnel resources essential for a program to operate accurately. An outline of components necessary for program implementation (Zins, Elias, Greenberg, & Weissberg, 2000) is:

I. Preconditions for Operation

A. Human Resources
   1. Number, type, and qualifications of required staff

B. Informational Resources
   1. Policies and procedures
      a. Criteria for selecting program clients
      b. Evaluation plan

C. Technological Resources
   1. Materials
   2. Equipment

D. Financial Resources
   1. Developmental budget
   2. Operational budget

E. Physical Resources

F. Facilities
   1. Rooms
   2. Buildings
   3. Sites

II. Nature of Methods and Activities

III. Roles, Responsibilities, and Relationships of Staff

A. Sequence and Timing of Activities

B. Amount of Permissible Variation Across Sites

Scott and Sechrest (1989) add to this, indicating that evaluation of an intervention program should also include the measurement and evaluation of treatment strength. Further, an evaluator should also utilize his/her training and knowledge in contributing to the discussion with stakeholders (Chen, 1998), thus, enhancing the scope of the evaluation.

Stakeholders (i.e., primary users) need to be involved in every aspect of the evaluation process (Patton, 1997) collaboratively increasing buy-in into the evaluation and increasing utilization. Thus, stakeholder involvement serves as one of the key foundations for the

theoretical perspective. For Patton (1997) the role of evaluation is to provide useful information to primary users, while Chen (1990) asserts that the primary goal of evaluation is to determine which program components are effective under what conditions. Patton and Chen both suggest that the field of education does not have a sufficient conceptual model of implementation or a solid understanding of the factors that affect implementation to guide advancement in these areas. Recent efforts in program evaluation offer guidance for developing such a model through the field's emphasis on program theory and TDEs (Chen, 1990; Weiss, 1995). In particular, the approach to theory-driven program evaluations outlined by Chen (1990, 1998) can be adapted to school-based efforts.

Strategies to Facilitate Effective Program Delivery

According to Greenberg, Zins, Elias, and Weissberg, (2003), school district personnel can implement a range of strategies to improve program delivery in their schools at three different time points: (a) when a program is first being considered (pre-adoption phase); (b) when a program is being conducted and implementation quality is monitored (delivery phase); and (c) when program outcomes are evaluated and information obtained through the evaluation is used for program improvement (post-delivery phase). The pre-adoption phase involves key stakeholders (i.e., administrators, teachers, parents, and students) that are involved early on when schools are in the process of selecting a program and planning its implementation. Once program implementation has begun in the delivery phase, it is then necessary to monitor program quality carefully and on an ongoing basis. If the program is successful during the final stage, post-delivery phase, steps are taken to integrate the program more broadly into the existing infrastructure of the school. The TDE phases of program implementation are summarized in Tables 14, 19, and 23 (Chapter Four) and may be viewed in their entirety in Appendix O.

Theory-based evaluation, in accordance with intervention theory, examines conditions of program implementation and mechanisms that mediate between processes and outcomes as a means to understand when and how programs work (Weiss, 1997). Theory-driven program evaluation allows one to uncover the program theory explaining the links between the objectives and the means undertaken to achieve the anticipated results. This strategic approach is useful in demonstrating mechanisms between these assumptions and the observed effects, which is in line with Chen (1994) who recommends first relying on a qualitative approach to construct program theory and then applying quantitative methods to test it. TDE provides essential information for a future outcome evaluation by clarifying the program objectives and identifying indicators to verify to what extent the intended program was actually implemented.

Implementation Quality

Implementation quality, also know as "*treatment integrity"* (Dane & Schneider, 1998; Gresham, 1989; Gresham et al., 1993), "*fidelity"* (Moncher & Prinz, 1991), and "*adherence*," is defined as the degree to which an intervention is conducted as originally intended (Durlak, 1995; Yeaton & Sechrest, 1981). This definition is based on the assumption that the intervention is specified before beginning the program and then measures how the intervention is actually conducted. Dane and Schneider (1998) specify five aspects of implementation quality in their review of school-based preventive interventions: (a) adherence (i.e., the degree to which program components were delivered as prescribed), (b) exposure (i.e., the frequency and duration of the program delivered), (c) content and affective quality (i.e., the qualitative aspects of the program delivery), (d) participant responsiveness, and (e) program differentiation. This last dimension is added because some studies examined were highly controlled research evaluations in which an

intervention group was compared to a control or comparison group that did not receive the test intervention, but unintentionally may have received another type of intervention.

In Chen's model (1998), interventions are the change agents that are linked through causal mechanisms to specific intended outcomes and take place within an implementation system that provides the means and context for delivery of the intervention. The implementation system includes such elements as staff training or the infrastructure that coordinates intervention efforts and is embedded within the broader general environment. Chen (1996) argues that the implementation system is as important to program effectiveness as is the intervention itself; for implementation failure can occur when the implementation system does not support the intended delivery of the intervention. The promotion of program integrity should be distinguished from the verification of integrity that requires ongoing monitoring of implementation quality, which is why the implementation system must also be monitored as part of the program evaluation.

Traditional evaluations of implementation quality or treatment fidelity focus solely on the discrepancy between the program as planned and the program as delivered (Charters & Jones, 1974). The evaluation model proposed by Chen (1998) expands the definition of implementation quality to include the discrepancy between the implementation system *as planned* and the implementation system *as delivered* (see Figure 7). Embedded within this implementation discrepancy are several key components needed to effectively assess this differentiation. Maher and Bennett (1984) describe these components as: (a) preconditions for operation (e.g., illustrating needed resources); (b) nature of method of activities; (c) roles, responsibilities, and relationships of staff; and (d) sequence and timing of activities. Implementation evaluations that assess these components are capable of effectively describing the program delivery and identifying the conditions under which the program is operating.

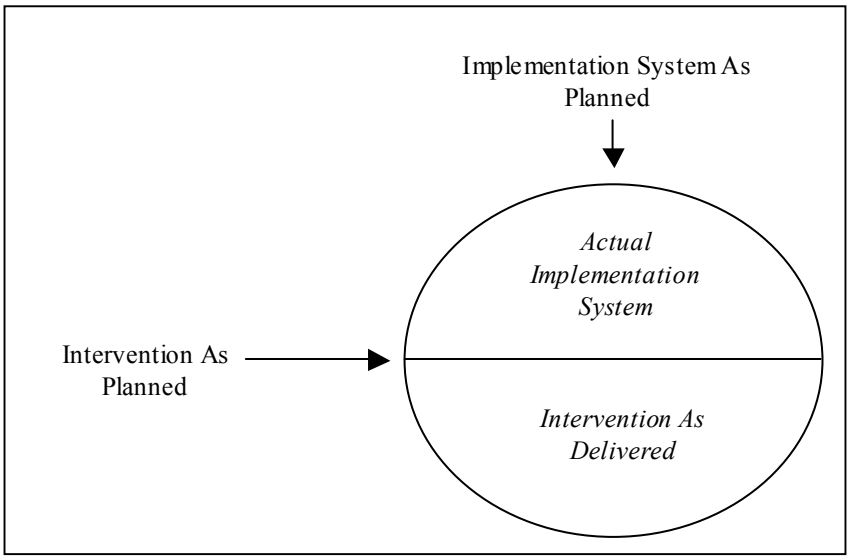

Figure 7. *Implementation Discrepancy.* From "The Study of Implementation in School-Based Preventive Interventions: Theory, Research, and Practice," by Greenberg, Domitrovich, Graczyck, and Zins (2004). Reprinted with permission from author.

Program Theory

A program theory as depicted in the evaluation theory literature is "a process through which program components are presumed to affect outcomes and the conditions under which these processes are believed to operate" (Donaldson, 2002, p. 42). An evaluation that is intended to develop a theory, which in turn is used to guide the program evaluation, is known in the literature as a TDE (Chen & Rossi, 1992). Chen (1990) defines program theory as a group of interrelated assumptions, principles, or propositions that enable us to explain or guide social action. He further articulates it as "a specification of what must be done to achieve the program's desired goals, the important impact that may be anticipated, and how these goals and their impact would be generated" (Chen, 1990, p. 43). Program theory has also been described as "an explicit theory or model of how the program causes the intended or observed outcomes" (Rogers, Petrosino, Huebner, & Hacsi, 2000, p. 29). The commonalities of these descriptions indicate that theories (a) address the focus and role of the evaluation, (b) the specific questions to be studied, (c) the evaluation design and implementation, and (d) the use of evaluation results.

Specification of the program theory in program evaluation is effective and supportive at each stage of evaluation. Among its benefits is the increased ability to identify the program and target groups, to specify intervening and causal mechanisms, to discriminate between program failure in implementation and theory failure, to uncover unintended effects, to improve the formative use of findings, and to contribute to social science knowledge (Bickman, 1987; Chen, 1990; Lipsey, 1993). The program theory helps to frame further evaluation activities and serves as a way to assist in refining evaluation questions and direct areas of further study. Two of the most compelling reasons to use intervention programs grounded in theory are that they typically will have a conceptual basis for the design and operation of a program and defined components of the implementation (Cook et al., 2000). The theory-oriented approach attempts to distinguish between the program and delivery system (Cristie & Alkin, 2003) by articulating the causative and prescriptive assumptions and adapting the assessment procedures. Chen and Rossi (1987) argue that a model or theory should be formulated with stakeholder involvement in a program evaluation and the modeling process should include the identification of potential threats to validity in research. Determining the processes that mediate the effects of program participation often can reinforce the validity of main-effect findings by providing a plausible causal explanation (Bickman, 1987; Cook et al., 1993; Lipsey, 1993; Mark et al., 1992).

A program theory can be created from three discrete sources: (a) bringing in prior theory and research from the social sciences; (b) exploratory research directed toward discovering the underlying causal mechanisms of a program; and (c) extraction of the stakeholders' implicit program theory (Chen, 1983). One of the chief tasks of program theory is to examine and specify why and how a treatment procedure leads to some observed outcomes, which permits stakeholders to understand why and how an intervention will or will not work and provide data

for program improvement. The examination of these intervening processes usually investigates causal chains, events, or processes after the intervention is implemented (Chen & Rossi, 1983; Lipsey & Pollard, 1989) and identifies the conditions required to achieve the planned outcome. These basic assumptions are centered around the assumed connections between the means and the results to be obtained, which may emanate from a well-known theory or be based on beliefs in certain values or ways of doing things (Harachi, Abbott, Catalano, Haggerty, & Fleming, 1999). The role of the evaluation is to make these assumptions known, incorporate them into a theoretical plan, and examine their relationship with the program as implemented.

Program theory integrates efforts from the fields of program evaluation (Chen, 1990, 1998; Scheirer, 1994; Weiss, 1995,1997), prevention science (Watson et al., 1997; Dane & Schneider, 1998; Durlak, 1998; Elias, 1997; Elias et al., 1997; Gottfredson et al., 1997; Pentz et al., 1990; Weissberg, 1990; Zins & Erchul, 2002), and education (Bodilly et al., 1998; Gersten et al., 2000). Functions of program theory, the interface between theory and methods, strategies for formulating theory, cost and resource constraints, TDE typologies, and the future implications of such evaluations are topics of emphasis in research performed by Chen and Rossi (1983, 1987, 1989, 1992), the findings of which have been used to illustrate the relevance of a theory-driven approach. The theory-driven evaluator should construct a program theory drawing upon existing knowledge regarding program inputs, mediating processes, and outputs (Chen & Rossi, 1983). Thus, it is the program theory, ideally formulated using a social science approach that serves as the foundation of the TDE (Scheirer, 1987). A program theory specifies the essential components of an intervention, the conditions necessary to implement the program, and the ways in which these components produce change in the participants (Greenberg, Zins, Elias, & Weissberg, 2003). By assessing how these components are affected during program implementation, it

becomes possible to examine whether the change process functioned as hypothesized when the program was designed (Cook et al., 2000; Harachi et al., 1999).

Theory-Driven Evaluation

To date no model has examined how best to implement a school-wide prevention program in the school setting or explored factors that influence implementation in the school context (Greenberg, Zins, Elias, & Weissberg, 2003). A need for an extensive theory that incorporates multiple perspectives is evident. Greenberg and others (2000) offer a theory-driven model for studying program implementation in school-based settings that makes a distinction between the causative theory explaining program outcomes and the prescriptive theory describing how the program should be implemented to attain intended outcomes. In addition, the theory-driven model bases assessment of implementation quality on both measures of program delivery itself and measures of the support system for training and consultation. Further, this model identifies influences that are external to the program, which may have considerable influence on program implementation quality.

With the growing emphasis on process evaluations since the late 1980s, the field of evaluation research increasingly has moved away from traditional program evaluations (i.e., method-driven evaluations) toward the development and application of TDE (Bickman, 1987, 1990; Chen, 1990, 1998; Chen & Rossi, 1992; Patton, 1997; Weiss, 1995, 1997). According to Chen and Rossi (1989), there is currently a strong movement in program evaluation to move from "black box" evaluations, concerned primarily with the relationship between the inputs and outputs of a program, to theory-oriented evaluations. Theory-driven issues detailed in their research include: (a) the formulation of program theory; (b) outcome specification; (c) program implementation; (d) theory and randomized experiments; (e) the nature of different types of

TDEs; (f) strategies for constructing a TDE, and (g) the role of the theory-driven evaluator (Chen & Rossi, 1998). The primary objective of traditional program evaluations is to assess program outcomes through predetermined research steps (Chen & Rossi, 1992), rarely focuses on *why* a program was effective or *how* it can be improved (Chen, 1998). In contrast, the primary objectives of TDE are (a) to utilize the essential components of the theory that underlies a particular program to specify the design of the program evaluation itself, (b) to understand *how* and *why* a particular program resulted in certain outcomes, and (c) to use that information as a means to improve the effectiveness of a program (Chen, 1990, 1998; Weiss, 1995).

Program evaluation is commonly identified as a principal area of applied research, evaluating the social reforms and innovations that occur in government, education, the criminal justice system, industry, health care, and mental health institutions (Cosby, 1997). The theory-driven perspective directly addresses the major issues in formative and summative evaluations, aiding program personnel to think through and identify the processes linking program treatments and desired outcomes. TDE emphasizes an understanding of transformational relations between treatment and outcomes, as well as contextual factors under which the transformation processes occur (Bickman, 1987; Cook & Shadish, 1986; Cordray & Lipsey, 1986; Trochim, 1986). TDEs are those in which the explanatory program theory has been made explicit and its test has been made an integral part of the evaluation (Chen, 1990; Costner, 1991), arguing against the common assumption that evaluation research is inherently atheoretical. According to Weiss (1997), "theory-based evaluation examines conditions of program implementation and mechanisms that mediate between processes and outcomes as a means to understand when and how programs work," (p. 41) providing essential information for a future outcome evaluation.

TDEs represent a plausible and sensible model of how a program is supposed to work (Bickman, 1987). TDE approaches are more comprehensive in scope and explanatory power than other, non-theory-driven, approaches (Cronbach, 1982; Lipsey, 1993). A major advantage for evaluators in TDEs is that they can select from various types of theory to find what will best fit the stakeholder's needs and resource constraints (Chen, 1989). TDE is especially useful in identifying crucial issues in an evaluation, in integrating program implementation into the evaluation process, in diagnosing problems in program structure and underlying causal mechanisms for program improvement, and/or in enhancing the utilization of evaluation results. TDE generally emphasizes the explication and testing of *a priori* program theories in determining effectiveness (Bickman, 1987; Chen, 1990; Chen & Rossi, 1983; Worthen, 1996). Causal uncertainty is reduced through an examination of the empirical pattern of findings against the expectations inherent in the program (Chen, 1990). TDEs require data collection and empirical verification of theory, but are not bound by a particular research method (Chen & Rossi, 1992).

Mixed Methods

Recent efforts in program evaluation offer guidance for developing a conceptual model through emphasis on program theory and TDEs (Chen, 1990; Weiss, 1995) that combine both quantitative and qualitative methods (Green, Caracelli, and Graham, 1989). Mixed method evaluations can compensate for methodological weaknesses, triangulate the evaluative evidence, and expand the scope of study (Chen, 1990). The theory-driven perspective proposes a contingency approach toward selecting inquiry methods, based on the premise that no one-inquiry method best serves all evaluation needs (Chen, 1990, 1994). One of the crucial tasks

under this approach is to identify the contextual circumstances that are most relevant to selecting and applying a particular inquiry method in a given evaluation setting.

It is more appropriate to use a mixed methods approach under a TDE framework when an evaluation context requires both intensive and extensive information, offering only partial availability or accessibility of credible data, and presenting characteristics are of both open and closed systems. Evaluation design can blend selected quantitative methods and qualitative methods to produce an integrated mixed-method design (i.e., randomized experimental design), which should direct evaluation. Because the theory-driven perspective deals with multiple issues in both formative and summative evaluations, the use of multiple methods and/or designs in an evaluation is desirable (Cordray, 1989) and can provide highly insightful and useful information for program evaluation.

The preceding recommendations for implementing a TDE provide guidance for school district personnel to consider for improving program implementation acceptance, delivery, and institutionalization. Some of the strategies may be of greater or lesser importance, depending on both the type of intervention being considered and the local context and history of implementing effective programs within the respective school. Along with gathering data on implementation itself, school personnel should consider examining factors in the implementation support system or outside the program that they believe might substantially affect the quality of implementation in their setting. Greenberg and colleagues (2000) recommend using the program's theory to guide local changes in implementation, being clear about what changes are made and why, and evaluations should link the study of program changes and implementation to the program theory. The primary goals of TDE are to assess whether the intervention is implemented as planned (i.e.,

the prescriptive model) and whether the mechanisms of change function as expected (i.e., the causal model), without neglecting quality concerns.

Causative Theory

According to Chen (1990, 1998), to conduct a TDE, an evaluator first must construct a comprehensive program theory that address two areas; causative and prescriptive theory. The first component, *causative theory*, describes the "how and why" of the program which illustrates how the program is expected to achieve particular outcomes, the relationship between the intervention and the outcomes, and the mediators or moderators of the intervention effect (Chen, 1990, 1998). Causative theory explains how a targeted problem develops and influences the selection of appropriate strategies and how the program affects the targeted outcomes by identifying change as a function of the intervention (Harachi et al., 1999). Program failure may result from weakness in either the causal or prescriptive aspects of the program theory. For example, program failure may be a function of inaccurate theory about the causal mechanisms (i.e., mediators and moderators) that link interventions with outcomes or it may be due to a failure to implement the intervention properly (Chen, 1996).

A successful behavioral intervention program begins with the choice of an appropriate strategy to assess and target the identified needs and an accurate underlying causative theory of how the need develops and is maintained. Chen (1990) distinguishes between *causative evaluations* (i.e., focusing on program consequences, how they came about, and the limits of their generality) and *normative evaluations* (i.e., focusing on program goals and the integrity of program implementation). Dane and Schneider (1998) define normative theory as one that provides guidance on how to design and implement a program (i.e., the treatment, goals, and implementation processes in a program) and causal theory as one that specifies how the program

works (i.e., what intervening and contextual factors could mediate the relationship between the treatment and outcome). Causal modeling analyzes the set of interrelated variables in program processes and requires that variables in the model be quantifiable and the assumptions underlying the model such as identification converge. In addition to measuring the long-term or distal program outcomes, every evaluation of a preventive intervention should include an assessment of mediators or proximal target outcomes to explain any treatment effects and confirm that the change process functioned the same way as it did when the program was developed (Chen, 1990). Figure 8 is a simple rendition of a causative model, though most causal models of real-world change are considerably more complex and contain multiple mediating mechanisms (e.g., cognition and behavior) and multiple levels of change (e.g., individual, family, classroom, and district) (Chen, 1998).

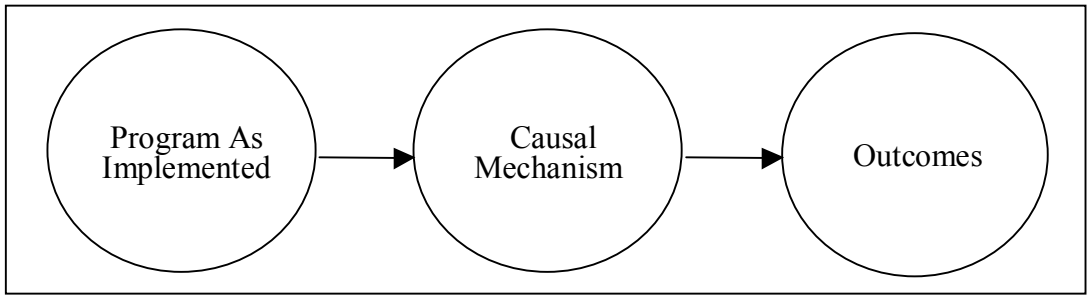

Figure 8. *Causal Portion of Program Theory.* From "The Study of Implementation in School-Based Preventive Interventions: Theory, Research, and Practice," by Greenberg, Domitrovich, Graczyck, and Zins (2004). Reprinted with permission from author.

Prescriptive Theory

The second major component of a program's theory is its prescriptive (normative) theory, which describes how the program should be implemented or the manner in which daily activities of the program should proceed (Chen, 1990, 1998). This component includes the goals of the program, the guidelines for the type of intervention to be provided, and the context that is necessary for the successful implementation of the intervention (Greenburg et al., 2004). In

developing a comprehensive program theory, one needs to outline the prescriptive theory, the "how to" of the intervention (Chen, 1998), which involves specifying the essential elements of both the planned intervention and the planned implementation system (e.g., essential policies, structures, or setting characteristics) and then developing a measurement system to assess these elements. Figure 9 illustrates Chen's (1998) model incorporating both the planned intervention and the planned implementation system, indicating that some discrepancy will exist between what is planned and what actually happens in both of these elements. The discrepancies in both the intervention and the implementation systems need to be identified and understood to help explain variation in effects as a result of the way in which the program was implemented. Figure 10 depicts an adaptation of Chen's prescriptive theory as it applies to school-based intervention programs, further delineating the planned intervention and implementation system.

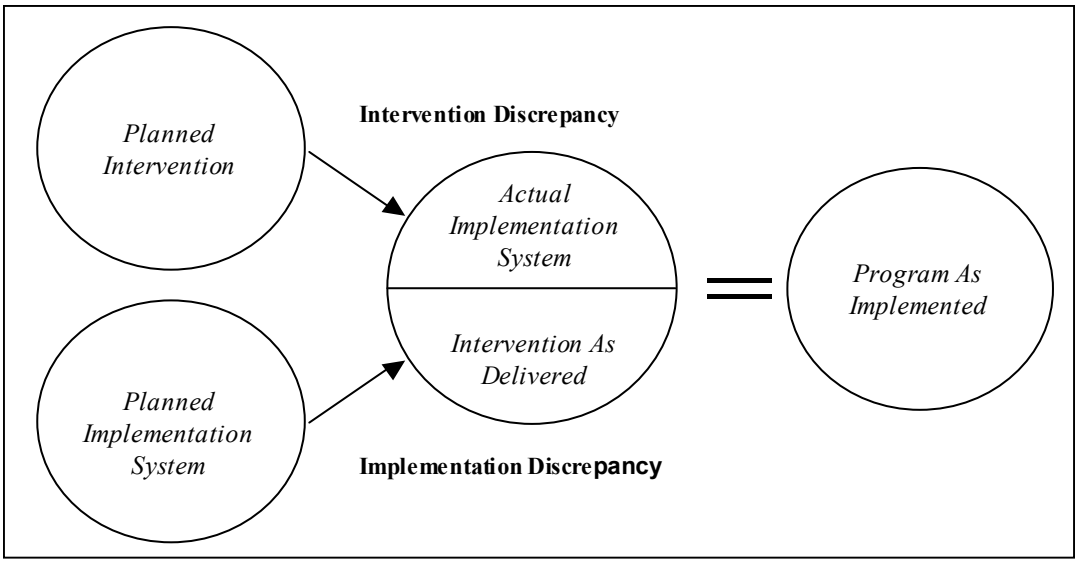

Figure 9. *Prescriptive Portion of Program Theory.* From "The Study of Implementation in School-Based Preventive Interventions: Theory, Research, and Practice," by Greenberg, Domitrovich, Graczyck, and Zins (2004). Reprinted with permission from author.

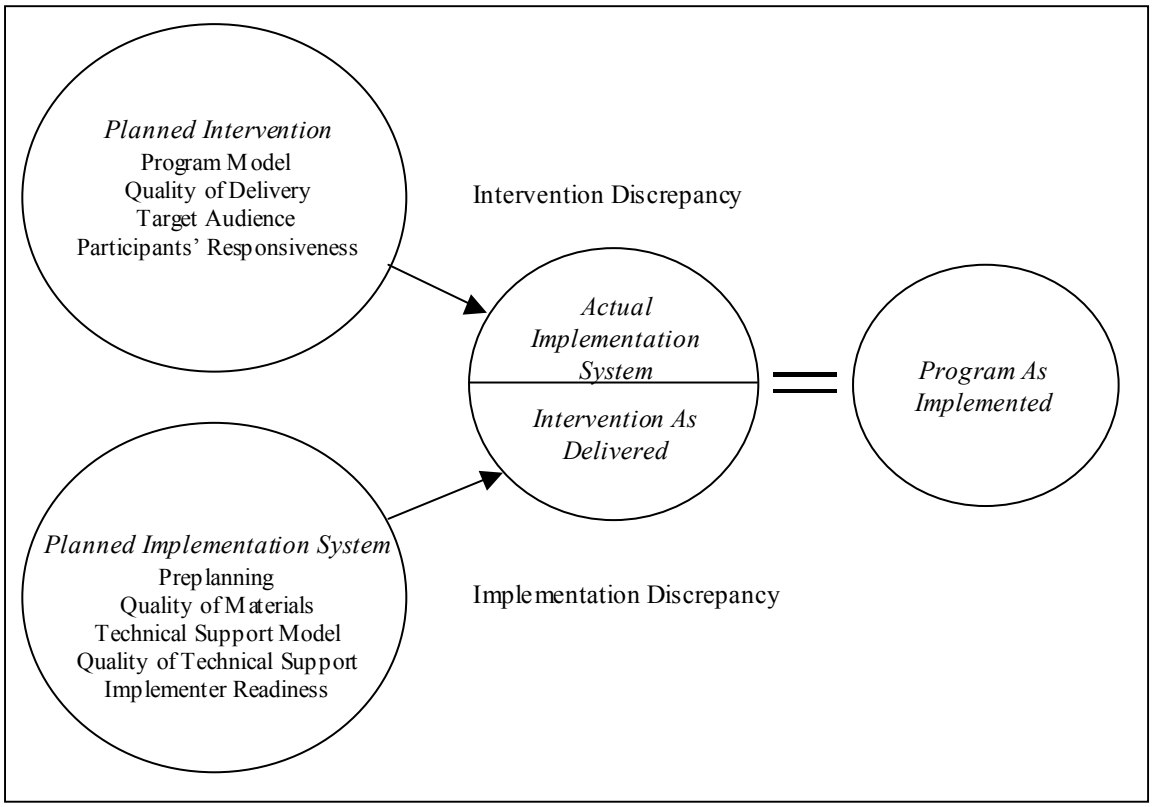

Figure 10. *Prescriptive Portion of Program Theory for School-Based Programs.* From "The Study of Implementation in School-Based Preventive Interventions: Theory, Research, and Practice," by Greenberg, Domitrovich, Graczyck, and Zins (2004). Reprinted with permission from author.

Planned Intervention

Theory components take the planned intervention and the planned implementation support system into consideration in comparison to the actual implementation. In addressing actual versus planned implementation, the previously illustrated three-phase framework for facilitating effective program delivery (pre-adoption, delivery, post-delivery) represents a thorough means of assessment to appraise the implementation status of a school-wide behavioral support program. By employing such method, implementation evaluation data collected can illustrate information about the extent to which the actual planned intervention and implementation support are operating relative to the program as implemented. In application,

formative evaluation questions are utilized that focus on a school-wide program's implementation quality, catering to both the promotion and verification of program integrity (Dane & Schneider, 1998). It has been conveyed that a program intervention can be completely transformed in the process of implementation, indicating that implementation should be included as a part of evaluation activities. After an implementation plan has been established, the detailed procedures and processes of implementation need to be formulated, adjusted, and revised as the implementation progresses. In doing so, evaluators should measure four dimensions of their planned intervention within their behavioral intervention program (Greenberg et al., 2004):

1. Program Model (Structure; Content; Timing; Dosage; Nature of intervention);
2. Quality of Delivery (Affective nature or degree of engagement; Effective use of implementation techniques; Generalization of skills);
3. Target Audience (Actual program recipients); and
4. Participants' Responsiveness (Perceptions; Skills; Knowledge; Beliefs/Efficacy).

Each of the four dimensions has some degree of influence on the planned intervention and, thus, must be given due consideration. For example, the first dimension, program model, includes: who delivers the program and the format of the delivery; the essential components or essential elements of the intervention; the pace at which the program should be administered, including both the frequency and the duration of the intervention; the prescribed level of exposure to the intervention and how much of the intervention should be provided; and how the given intervention is likely to affect implementation quality. The second aspect of the planned intervention, quality of delivery, includes: the affective nature or degree of engagement of the implementers; the implementers' presentation style or variety of materials or methods they use; and the extent to which intervention concepts are generalized across the intervention context.

The third dimension, target audience, refers to the population intended to receive the intervention, whether this is accomplished, and the monitoring of who was present when the intervention was delivered. The last dimension that warrants monitoring is participant responsiveness (i.e., the way in which participants receive the program), in which positive participant ratings are commonly used as a marker of high implementation quality. The critical considerations are (a) the extent to which we are actively aware of and acknowledge the influence of each dimension and (b) the actual magnitude of effect each dimension has on the planned intervention.

Planned Implementation Support System

In the school-based adaptation of Chen's (1998) model, the term *implementation system* is replaced with the term *implementation support system* to remind program implementers that even the strongest, most extensively evaluated program may fail without an adequate support system. The implementation support system is divided into five dimensions essential to most school-based prevention programs, and should be included in every program theory and comprehensive evaluation (Greenburg et al., 2004):

1. Pre-Planning (Capacity; Awareness; Commitment/Engagement; Incentive for change; History of prior program implementation);
2. Quality of Materials (Design of program materials; Format of program materials);
3. Technical Support Model (Structure of training and supervision; Content of training and supervision; Timing of training and supervision; Implementation monitoring system);
4. Quality of Technical Support (Quality of delivery; Quality of the working relationship; Trainer characteristics); and
5. Implementer Readiness (Perceptions; Skills; Knowledge; Beliefs/Efficacy).

Pre-planning may be defined as any preparation made by the school before the implementation of an identified intervention. Many intervention programs fail to specify pre-planning steps even though planning decisions made before program implementation can have a significant impact on the success of program adoption. These factors strongly influence an organization's overall readiness for implementation (Oetting et al., 1995) and include what Stufflebeam and Shinkfield (1985) refer to as "context and input evaluations." To address these, school personnel must begin with both an awareness of a need that affects the students in their community and an accurate assessment of the contexts in which the need exists (Zins, Elias, Greenberg, & Weissberg, 2000). Programs may not succeed if the individuals implementing them are not aware of the problems and needs or are not convinced that the programs are necessary (Elias et al., 2000).

Instructor manuals probably are the single resource most widely used by teachers implementing youth development and other instructional prevention programs (Graczyk et al., 2000). Successful program implementation is more likely when the program materials are visually appealing, user friendly, age appropriate, and culturally sensitive. They are most helpful when they include a comprehensive scope and sequence chart, provide the theoretical rationale for the program, explain the theory's connection to the lesson content and teaching strategies, clearly state the program objectives, and include detailed and well-organized lesson plans. One of the most important dimensions of the implementation support system is the technical support model (Weissberg, 1990). It includes the implementation monitoring system and additional technical assistance materials provided by the program to determine who delivers program support and how it is delivered to implementers.

It is likely that teachers will be more interested in a program when their training is conducted in a collaborative, engaging manner. Adherence to program protocol can be improved and resistance decreased by creating a supportive, cooperative partnership between trainers and implementers. Trainers need to be adequately prepared and experienced to provide the technical support to school staff to establish and maintain open channels of communication that facilitates effective problem solving. When problems arise, any discrepancies between trainer and implementer assessment of the nature of the problem need to be addressed (Zins, 1985). Indicators of implementer readiness include whether they have both adequate skills to carry out the intervention and sufficient knowledge about the theoretical basis of the intervention, feel positive about a program, value what it contributes to the educational setting, and are committed to its goals (Greenburg et al., 2004). Implementers also need to believe that both the intervention and their role in its delivery will be effective (Slaby, 1999), since the implementer's confidence affects the ability to deliver a program successfully.

Contextual Factors That Effect Program Delivery and Effectiveness

The elements on which the planned intervention is built and that are contained within the implementation support system are critical, though the adoption and effective use of any intervention program do not occur in a vacuum. In fact, a broad array of factors outside the program theory (e.g., the external environment composed of differing ecological systems) may affect the quality of the intervention process or the program outcomes (see Figure 11). Support for an intervention program usually must be obtained within each of these systems, for entry into a system is not a single event or time, but rather a process (Zins & Curtis, 1981). For example, any school-based intervention program is likely to be more successful if it has administrative support; thus, the nature of this support should be evaluated because it may also affect program

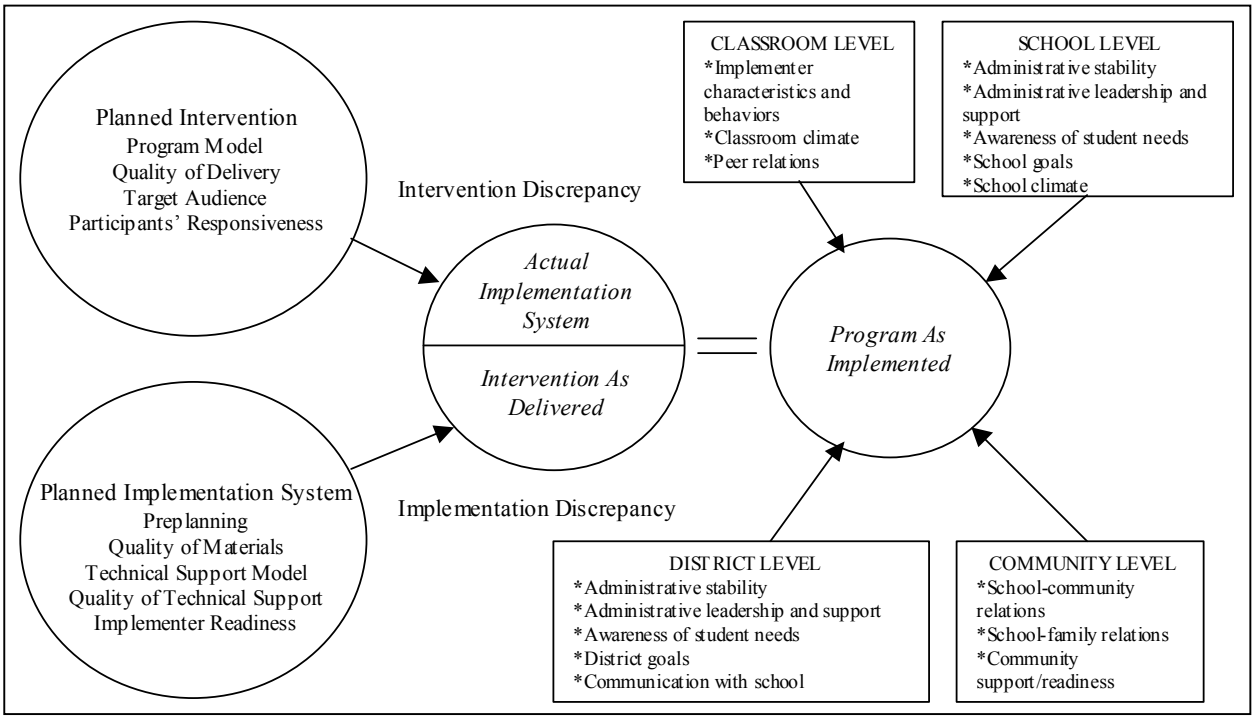

Figure 11. *Contextual Factors That May Affect Intervention Process or Program Quality.* From "The Study of Implementation in School-Based Preventive Interventions: Theory, Research, and Practice," by Greenberg, Domitrovich, Graczyck, and Zins (2004). Reprinted with permission from author.

effectiveness. However, if the support and action of the building administrator are central components of the program model, then measurement of the principal's behavior and support should become an essential aspect of the implementation support system model.

External Program Implementation Contextual Factors

Factors at the classroom level. Most teachers who are effective in teaching academic skills also will be effective implementers of intervention programs and for many school-based intervention programs; they are the primary program implementers. Teachers need to be aware of their own competencies, emotional and social needs, as well as those of their students in order to choose and successfully apply the interactive types of teaching strategies called for in most intervention programs. Such self-awareness may be needed if teachers are to understand their own positive and negative reactions to specific program activities or content (Kessler, 1999).

Classroom climate refers to the array of social and psychological aspects of the classroom environment, including shared goals, the level of cooperation and mutual respect among classroom members, and the relationships between teacher and students (Wang et al., 1997), and it can be either a positive influence in the implementation of intervention programs or a significant barrier. No single factor defines a classroom's climate. Teachers can promote a positive classroom climate by using effective classroom management techniques, by empowering students to participate in responsible decision-making, and by serving as models of appropriate social and emotional competencies. The influence of students' relationships with each other should not be underestimated, since the peer group not only serves as a major context in which children need to demonstrate social and emotional competencies, but also it can serve as a contributing factor to both concurrent and future adjustment (Berndt &Keefe, 1995; Newcomb et al., 1993; Parker & Asher, 1987).

Factors at the school level. The school's ability to provide physical or administrative support for interventions (e.g., allocating sufficient time within the existing daily schedule for a new program to be implemented) is one school-level factor that affects implementation. This is a particular concern at present, given the current standards movement and the accompanying high-stake testing (Linn, 2000). School policies need to be modified to make the program successful and support needs across multiple levels of the district hierarchy. The school principal must back and lead the change by providing support through organization, motivation, and direction. Positive interpersonal relationships within the school may have a profound effect on the quality of implementation because they build a sense of professional community crucial to promote positive student outcomes (King & Newmann, 2000). It is believed that principals, teachers, and staff need a strong foundation of goodwill, respect, and collaboration in order to meet the

challenges of implementing a new program (Greenburg et al., 2004), especially if the intervention includes multiple, integrated components. School personnel need to share common goals, to communicate openly, to exchange ideas, and actively problem-solve with one another to create a positive school environment that allows staff to take risks, to support one another, to learn from their mistakes, and to grow professionally.

Factors at the district level. Although implementation usually occurs at the school and classroom levels, district administrators as well as school board members can have substantial influence (e.g., funding allocation). Intervention programming is likely to receive stronger endorsement as well as greater resources if it targets an aspect of the district's mission statement or addresses a district objective or school board concern. Thus, the attitudes and beliefs of teachers, school administrators, support staff, and members of the broader community who make school-related decisions affect implementation quality and the overall success of intervention initiatives (Bickel & Bickel, 1986). These individuals first must be aware of a need in the community and must believe that creating change is a school-community goal for intervention efforts to be successful. If the problem is seen as preventable and the intervention as effective, it will increase the likelihood that the intervention becomes a priority accompanied by sufficient financial and human resources, as well as time for implementation during the school day.

Factors at the community level. Schools function within larger systems at the local, county, State, and Federal levels, and may not have the power to make decisions regarding the adoption of a preventive intervention, even at the school-level, particularly if it requires the allocation of additional resources. For example, certain programs require collaboration between school personnel and mental health service providers who work outside of the school building (Eber, 2003). Contextual factors at the community level may strongly influence the

implementation quality of interventions conducted in school settings. Understanding this, they may lead to improvements in both social and emotional outcomes for both students and teachers. In some cases, targeting changes in system alignment and linkages may be the first intervention needed (Zins & Ponti, 1990).

The TDE section presented described both a model and guidelines for the conceptual and empirical study of the implementation of school-based intervention programs. In addition, it discussed typical barriers and supports that affect the quality of that implementation from the stage of planning through program delivery. This information offers a useful framework for understanding key factors and issues that contribute to the successful implementation of school-based intervention efforts, for demonstrating how implementation quality influences positive program outcomes among students, and for delineating the importance of monitoring and documenting the quality of the implementation of school-based intervention programs. In review of various districts that have implemented PBS programs (e.g., Anderson et al., 1993; Bickel & Bickel, 1986; Dickie et al., 1991; Ford, 1984; Kemp & Carr, 1995; Meyer & Evans, 1989; White, 1988), several theoretical concepts key to implementation surface that may become barriers if ignored. Foremost, administrative participation and support are essential along with collaborative teaming that includes all faculty and staff. Implementers need to take time to plan ahead and teach the expectations, using data to identify chronic problems. In addition, it is advisable to recognize and reinforce expected behavior, while keeping an eye on policy. Lastly, communication with internal and external stakeholders and networking with other districts and schools implementing similar projects is highly recommended.

Literature Review Summary

This chapter has explored three key school-wide behavioral support areas in relation to

theory-based program implementation and PBS. It has outlined the conceptual underpinnings of school-wide behavioral support systems, detailed the PBS program and theory-based program evaluation methodologies, and provided support for the use of a TDE of program implementation. The information obtained through this literature review was extensive; however the principal findings were three-fold. First, a rich history and need for school-wide behavioral support is evident as supported by national statistics. For that reason, prosocial school-wide systems approaches for student misbehavior have been found to be superior in comparison to traditional behavioral management practices that lack functional assessment. Second, the utilization of the foundations and features of PBS in a school-wide application provides an excellent means for decreasing student misbehavior and increasing relevant and desired behavior as demonstrated by the many irrefutable supportive studies cited. In addition, the general set of guidelines of functional analysis and standards of behavioral intervention planning play an inherent role in PBS to achieve socially important behavior change.

For successful PBS program implementation, pertinent planning features are essential. Accordingly, detailed information about a conceptual model for program evaluation as associated with the theory-based program evaluation model was presented, demonstrating that evaluation studies are more likely to be purposeful if they are grounded in a theoretical framework. An extensive review of strategies for effective program delivery was also provided, offering a framework of components necessary for successful program implementation. A discussion of TDE was grounded in the major components of causative and prescriptive theory, planned intervention, and the planned implementation support system, which are inherent to the theoretical framework for a comprehensive program evaluation. Implementation evaluation measures, barriers, and discrepancies were articulated, since they too must be understood and

accommodated in order to avoid commonly encountered implementation impediments. Based on the findings of implications of many researchers, utilization of TDE is a significant alternative and beneficial to evaluation of a PBS program.

Purpose and Research Questions

The purpose of this research was to explore the efficacy of the implementation of a school-wide behavioral support program by performing a comprehensive theory-based evaluation. More specifically, a three-phase framework to facilitate effective program delivery was employed to acquire implementation evaluation data. These data were intended to yield information about the extent to which the program as implemented was operating relative to dimensions of the actual planned intervention and planned implementation support system. The conceptual framework of the theory-driven model used involved measures of both causative and prescriptive program delivery and the training and consultation support system including consideration of contextual factors external to the program theory. To substantiate implementation precision, implementation quality was ultimately determined by a comprehensive measure of the degree to which the intervention program was implemented as it originally was planned. This was accomplished via data collection from multiple measures that utilized both quantitative and qualitative research techniques.

Research Questions

The two guiding research questions about the implementation process utilized in this study were:

1. To what extent has the actual PBS intervention been implemented in relation to the planned program goals and objectives; and
2. To what extent has the actual implementation support been delivered in comparison to the implementation support system as planned?

CHAPTER THREE

METHODS

School District Context

School district selection was made by the primary investigator following the identification of school districts in Ohio that had applied for and been selected by the Ohio Department of Education (ODE) Office of Exceptional Children to receive assistance for implementing PBS during the 2003-2004 school year. A specific school district was targeted based on (a) geographic proximity to the primary investigator and (b) the timetable set by the ODE for the school district's implementation of PBS. A K-12 school located in a small rural village was selected as the research site. This single school composed the school district. The school was situated within a working, middle class community with a racial composition of over 98% Caucasian. The building has an average daily membership of ≈580 students, 40 teachers, 10 related service/support personnel (the majority of whom are contracted through their affiliated county Educational Service Center), and 18 additional classified employees (e.g., custodial, secretarial, aides). School demographic data is presented in Table 7.

Project funding. In adhering to federal mandates of IDEA, State Departments of Education have been charged with implementing PBS within their Local Education Agencies. The ODE Office for Exceptional Children channeled the endowed federal funding to the 16 regional Special Education Regional Resource Centers (SERRC) of Ohio. The West Central Ohio SERRC utilized their annually furnished funding to compensate/off-set the salary of a full-time Behavior Intervention Specialist to implement the PBS plan. Additional grant funding was available to districts interested in piloting and maintaining a PBS program. The school participating in this study received this grant funding.

Table 7

Demographics for Participating School

Variables	K-6	7-12
Number of Students	281	299
% Caucasian	99	100
% Minority	1	0
% Average daily attendance	97.1	96.8
Average class size *(general education)*	20	20
Average class size *(special education)*	5	8
% Mobility rating	<8	<8
% Free or reduced lunches	7	7.5
% Teachers Caucasian	100	100
% Teachers Minority	0	0

Participants

Agreement for school participation in and commitment to the PBS plan was secured from the school administration. All personnel of the participating school were asked to participate in the study via a research study cover letter (see Appendix C) with the understanding that they could withdrawal at any time. To effectively implement the PBS program, a school-wide leadership team was established to guide the process. Members of this team included three administrators, four classroom teachers, two classified personnel, two related service personnel, one parent, one community member, one mental health representative, and two students. The high school and elementary administrators were selected to lead the behavior support teams for their respective grade levels.

Population sample. A cross sample of eight personnel representing the various subgroups of the school were randomly selected using a stratified sampling method and asked to participate in semi-structured interviews and a culminating focus group discussion. All participants were classified into respective subgroups (e.g., administrator, educator, support staff) and selected by using a table of random numbers to assure appropriate representation (Gay, 1987). Demographic information for the selected study members is presented in Table 8. Each participant listed participated in the planning sessions in the spring of 2003 and received ongoing formal training during the 2003-2004 school year.

Table 8

Demographics for Study Participants

	1	2	3	4	5	6	5	6	7	8
Participant	*E.S.*	*F.S.*	*M.J.*	*K.S.*	*D.H.*	*T.P.*	*M.S.*	*J.H.*	*T.C.*	*B.H.*
Ethnicity	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Gender	F	M	F	F	M	F	F	M	F	F
School Affiliation	Building Principal	Gen. Ed. Teacher	Gen. Ed. Teacher	Spec. Ed Teacher	Spec. Ed. Teacher	Speech (SLP)	Bus Driver	Guidance Counselor	Parent Volunteer	Mental Health
Years Experience	16	7	18	6	11	13	4	21	*NA*	13
Building	K-6	K-6	7-12	K-6	7-12	K-12	K-12	K-12	*NA*	*NA*
Degree(s)	MEd	BS	MA	BS	MS	MS	*NA*	MS	*NA*	BA
Licensed Area(s)	Educ. Admin.	Elem. Ed.	HS 9-12	Ed. of Hdcp.	HS 9-12, Ed. of Hdcp.	Elem. Ed., Speech	*NA*	HS 9-12, Guidance	*NA*	LSW
Grade Level(s) Taught	*NA*	3	9 & 10	4-6	9-12	K-6	*NA*	*NA*	*NA*	*NA*

Informed Consent. Approval for the study was acquired from the West Campus Human Subjects Review Board of the University of Cincinnati (03/17/04). During the inaugural PBS in-service, each teacher was provided with a conflict of interest disclosure (see Appendix A) and a consent form (see Appendix B) to fill out and return before the study was conducted. Consent forms for the participants not employed by the school (i.e., parent, mental health professionals, students) were disseminated and collected as well. The details of the research undertaken were

explained via informed consent, including the estimated demands of their time, extent of involvement in the study, potential benefits, and their right to withdrawal or decline to participate.

Procedures

Research Design

The study was performed via a mixed-method applied research design for data collection. Program evaluation was based upon a quasi-experimental process guided by a theory-based framework. The evaluative measures were employed within a three-phase framework to systematically monitor program implementation. Quantitative and qualitative descriptive approaches, both formative and summative, were utilized to assess program implementation (see *Instrumentation*). Data were collected via individual semi-structured interviews and a culminating focus group discussion. Finally, archival records of behavioral data were reviewed.

Intervention

The Ohio Integrated Systems Model (OISM) for PBS was adopted as the specific framework for the school-wide PBS intervention plan. The OISM is a tri-tier model grounded in the PBS literature (see Literature Review) and defined as:

Tier 1: Universal (Inform)

Tier 2: Target (Assist)

Tier 3: Intensive (Coach).

Purpose, context, structures, functions, and processes are considered within each tier. Specific intervention change elements that characterize PBS and, hence, were adopted for the school intervention included: (a) change of systems (i.e., policies, structures, routines), (b) change of environments, (c) change of student and adult (i.e., parent, teacher, staff) behavior, and (d)

change in appreciation of appropriate behavior in all involved individuals (i.e., student, staff, family, etc.) (Sugai, et al., 2000). A toolkit created by the ODE was selected to guide implementation. Supplements to the OISM were drawn from COMP (Everston et al., 1997; Everston et al., 2000; Everston & Harris, 2003) and *School-Wide PBS: Implementer's Blueprint and Self-Assessment* (OSEP Center on Positive Behavioral Interventions and Supports, 2002). A Behavioral Intervention Specialist trained as an Ohio PBS advanced trainer provided primary training and ongoing technical assistance to school personnel.

The program design and implementation procedures were conceived in the spring of 2003, with program implementation and integral training beginning in the fall of the 2003-2004 school year. The independent variable may be identified as the PBS program implementation. The dependent variable may be classified as the targeted outcome of improved behavior via quantifiable behavioral data. The evaluation methods were based on Chen and colleagues' (1987) theory-driven evaluation process.

The school's primary program goals focused on changing systems, altering environments, teaching skills, and focusing on positive behavior to reduce challenging or impeding behavior through the adoption of common school-wide behavioral interventions. These goals aligned with widespread PBS tenets and COMP elements integrated into the various training sessions (see *Training*). Specific COMP elements supporting classroom systems of behavioral management were added to the school's program implementation manual to supplement, yet maintain conformity to, the intended theoretical tenets of the OISM. Particular curricular features and design elements modeled by building implementers included: (a) establishing a collective vision and goals for intervention; (b) collaborating and building teams among building stakeholders; (c) conducting functional assessments; (d) designing hypothesis-driven, multi-component behavior

support plans; (e) implementing intervention strategies that include environmental adjustments, replacement skills, appropriate consequences, and lifestyle enhancements; (f) monitoring and evaluating intervention outcomes; and (g) infusing PBS into broader systems (Rehabilitation Research and Training Center, 1999).

Similarly, elements of *School-Wide PBS: Implementer's Blueprint and Self-Assessment* were incorporated into the OISM to enhance accurate and durable implementation of school-wide and classroom PBS practices and systems. In fact, material from this resource served as an integral component of a PBS 'Tool Kit' (*Positive Behavior Support: Meeting the Needs of Learners, Educators & Families*) developed by the ODE (Ohio Training Resources, 2003). In short, *School-Wide PBS: Implementer's Blueprint and Self-Assessment* was created as a multi-level guide for developing and evaluating PBS action plans and evaluating the status of PBS organizational systems. Material from this resource was particularly useful during the pre-adoption phase and as a conceptual framework in the school's program goal setting.

Several common and critical implementation activities were identified during the spring planning meetings. School organizational goals included identifying a common vision (i.e., mission, purpose, goal), common language (i.e., communications, terminology, information), and common experiences (i.e., routines, actions, activities, operations, etc.). Finally, school implementers embraced the key features of school-wide behavioral support as identified by Sugai and colleagues (2000), which included: (a) clearly defining three to five universal behavioral expectations in simple, succinct, and positive ways; (b) explicitly teaching expectations so that all students know exactly what is expected of them; (c) extensively communicating the universal expectations on a school-wide basis (i.e., rewarding and acknowledging by "catching students being good"); (d) comprehensively implementing a school-

wide positive reinforcement system; and (e) evaluating progress through a team process and making adaptations based on data.

Training

As previously indicated, a Behavioral Intervention Specialist trained as an Ohio PBS advanced trainer provided primary training and ongoing technical assistance to school personnel. This individual had over 20 years of behavior-related expertise as an educator, behavioral intervention specialist, and advanced PBS trainer. In addition, this person had received specific administrative training to ensure the capacity to guide and support effective implementation across all systems within the school.

Formal training during implementation included establishing a core group of building PBS team leaders and program goal setting sessions with full staff at faculty meetings. In addition, the behavioral intervention specialist held monthly meetings with core team members only, provided a comprehensive two-day team training seminar, and engaged in monthly intervention sessions supported by ongoing technical support to ensure routine assessment of implementation quality. Specific curricular features and design elements modeled by building implementers during the training included: (a) establishing a collective vision and goals for intervention; (b) collaborating and building teams among building stakeholders; (c) conducting functional assessments (i.e., gathering information and identifying behavior /environment relations); (d) designing hypothesis-driven, multi-component behavior support plans; (e) implementing intervention strategies that include environmental adjustments, replacement skills, appropriate consequences, and lifestyle enhancements; (f) monitoring and evaluating intervention outcomes; and (g) infusing PBS into broader systems (Rehabilitation Research and

Training Center, National Institute on Disability and Rehabilitation Research, U.S. Department of Education, 1999).

Coordinator and coaches training. Areas of focus for the initial training (spring/fall, 2003) of coordinators and coaches included: (a) developing and sustaining structures needed in the school at each level of PBS; (b) defining the role of coordinators and coaches; (c) creating linkages with mental health and other local community agencies and representatives; and (d) identifying and responding to specific school and community personnel skill development needs at all levels of PBS. Administrators and selected school staff members were identified and trained as building-level coaches (train-the-trainer model) with the role of providing leadership and guidance to PBS implementation at the building level to assist in the expansion and sustainability of PBS within the school.

Guidance for school and building level coaches included specialized training related to leading, coaching, and facilitating the change process in their schools. Content also included specific skill development (Sugai, Horner & Sprague, 1999) related to coaching other school staff in: (a) conducting FBA's; (b) developing FBA-based BIP's; (c) facilitating and/or participating in a wraparound team process; (d) facilitating interagency partnerships; (e) guiding teams in data-based decision making; (f) conducting systems evaluations; (g) assisting teams in the development of leadership and technical skills needed to build and sustain school level capacity; and (h) training in components of PBS. Specialized school staff members (i.e., school psychologist, guidance counselor) were identified and trained as coordinators to provide leadership in developing an individualized support team for students with intensive needs and partnered with local mental health staff and other community agencies for such referred students.

Preparing and organizing PBS teams. During a one-day overview and orientation (fall, 2003), grade level principals, the superintendent, and all school employees learned about the PBS model, expected outcomes, and required commitments for their school. They were afforded the opportunity to: (a) self-assess their school with regard to recommended PBS structures and features; (b) learn how to establish and prepare their teams (e.g., school representation, team leader/facilitator, out-of-school technical support liaison), faculties, and related staff; (c) examine existing school behavioral data/culture (e.g., review of permanent products) to determine initial emerging needs; (d) prepare their school and team for forthcoming training and implementation; and (e) identify individual school PBS team leaders among existing school staff.

Training content. Program implementation began with all school personnel attending planning sessions that took place during the spring of 2003 in individual building-level teams. Training included participation in goal setting sessions with full staff and core team members during monthly meetings with the Behavioral Intervention Specialist, a comprehensive two-day team-training seminar, and monthly technical support sessions to ensure routine assessment of implementation quality. Key COMP training components included: (a) planning and implementing effective strategies for room arrangements; (b) rules and procedures; (c) student accountability; (d) consequences and incentives; (e) behavior management; and (f) conducting class lessons (Evertson, 1998). The monthly training sessions included all educational personnel and adhered to the schedule listed in Table 9.

The two-day training session was held in September of 2003 in the school for all teachers and non-certified personnel. The in-service consisted of a review of the school's prior needs assessment and related decision-making, an overview of PBS, and culminated with guidelines and examples for school-wide implementation. In addition, personnel were provided with

Table 9

Overview of 2003-2004 Training/Action Plan Sessions

In-service Session #	Curriculum/Content Addressed	Assignments/Action Steps and Products
A (Spring '03)	*PBS/COMP awareness presentation*	1. Program selection/adoption 2. School consensus/commitment
B (Fall '03)	*PBS grant writing* *Building needs preference assessment*	1. Write grant to ODE 2. Administer EBS school-wide survey 3. Prepare PBS manual for school staff and team members
C (Fall '03)	*School-wide in-services (PBS/COMP)*	1. Establish building leadership teams 2. Design in-service training/determine meeting schedules 3. Review survey results/create action plans
1 (August)	*PBS Introduction/Implementation overview* *COMP – Organizing the classroom*	1. PBS (Foundations) 2. Investigate Intervention Assistance Team process/Overview FBA-BIP 3. COMP (Module 1)
2 (September)	*Introduction to decision systems* *Systems change in schools* *COMP – Planning and teaching rules and procedures*	1. PBS (School-wide Applications) 2. Update action plan 3. COMP (Module 2)
3 (October)	*Features of systems approach to effective behavior support* *Using data for decision making* *COMP – Managing student work and improving student accountability*	1. PBS (Setting-Specific Applications) 2. Prepare team reports. 3. Use data to determine necessary revisions. 4. COMP (Module 3)
4 (November)	*Review for school-wide maintenance and individual systems* *COMP – Maintaining good student behavior*	1. PBS (Class-wide Applications) 2. Review/prepare team reports. 3. COMP (Module 4)
5 (January)	*Using data for decision making*	1. Use data to determine necessary

Table 9 (continued)

		revisions.
	Organizing booster activities *COMP – Planning and organizing instruction*	2. PBS (Individual Student Applications) 3. COMP (Module 5) 4. Establish revised school rules (5-universal)
6 (February)	*Using data for decision making*	1. Use data to determine necessary revisions.
	COMP – Conducting and facilitating instruction to maintain lesson momentum	2. COMP (Module 6) 3. Identify classroom vs. office-managed behaviors
7 (March)	*PBS – review of data/maintenance*	1. Revision/going to scale booster activities
	COMP – Climate, communication, and self-management	2. COMP (Module 8) 3. Prepare team reports.
8 (April)	*COMP – Getting the year off to a good start* *Using data for decision making*	1. COMP (Module 7) 2. Review/prepare team reports. 3. Use data to determine necessary revisions.
9 (May)	*Conduct all-staff EBS post survey.* *Preparing for second year of school-wide implementation*	1. Complete EBS action plan for next year. 2. Integrate data for action planning 3. Review SET-SW data – plan for fall of 2004.

background information and research on the implementation of positive behavioral interventions and supports presently employed in schools across the United States. Following this introduction, the program proceeded with staff members participating in several group activities which enabled personnel to experience simulated functional analysis scenarios and respective prescriptive responses that are part of the PBS programming. The following content was explained and reviewed: (a) establishment of a collective vision and goals for intervention; (b) collaboration and team building among building stakeholders; (c) conducting of functional assessments; (d) design of hypothesis-driven, multi-component behavior support plans; (e)

implementation of intervention strategies that include environmental adjustments, replacement skills, appropriate consequences, and lifestyle enhancements; (f) monitoring and evaluation of intervention outcomes; and (g) instilment of PBS into broader systems.

Ongoing school-wide team training content included: (a) rationale, processes, and structures for setup of school-wide positive behavioral expectations; (b) continuum of responses to encourage positives and discourage negative behaviors; (c) processes for collecting and using school-wide data; (d) strategies for establishing faculty agreements and consistent implementation; (e) research-based practices in all school settings, including classroom and non-classroom settings; (f) strategies and processes for connecting and integrating PBS processes with reading and academic programming; and (g) self-assessment of status and action planning for enhancement of PBS.

Data Collection

A multi-method approach to data collection enhanced the ecological validity of the evaluation outcomes. Questionnaires, surveys, and checklists were used to determine if programmatic features had been implemented as planned (i.e., actual intervention/actual implementation support). All data collection during the 2003-2004 school year was conducted in accordance with the established monthly schedule during specified program evaluation phases in a prompt, straightforward, and non-threatening manner. Data collection was organized in the chronological order in which stakeholders went through the adoption of the PBS plan. The broad research questions served as a continual referent when selecting and creating questions for inquiry. Individual semi-structured interviews were conducted with representative stakeholders in order to acquire a deeper understanding of their impressions and experiences, as well as to have the opportunity to learn more about the answers they provided. Carefully collected

evaluation data from the school's PBS program provided focused direction about the next appropriate course of action so that it could be monitored for quality and adjusted as it was being implemented to maintain fidelity. Formative evaluation questions were utilized that focused on the school-wide program's implementation quality, catering to both the promotion and verification of program integrity (Dane & Schneider, 1998).

Implementation Evaluation Phases

Phase One of the program evaluation involved program selection, implementation planning, staff awareness and background training, grant writing, and a school-wide survey. This phase of the program evaluation also involved archival record review of past and present school behavioral records and data from prior needs assessments conducted during the 2002-03 school year. Underscoring that this was not a study of the influence of PBS on child outcomes, behavioral data was collected and analyzed to ascertain if pertinent items were "in place or not" in accordance to prescribed school-wide PBS assessment procedures. Next, specific questions regarding evaluation of need were solicited from building stakeholders through administration of the *School-Wide Behavior Survey*. Specifically, a quantitative building-wide assessment that incorporated archived behavioral data (e.g., data on office referrals, suspensions, etc.) and recorded interview responses was administered to corroborate evaluation outcomes. By establishing the administration of the survey in a pre-post fashion, program leaders are now able to study relationships among designated variables (Sugai, Todd, & Horner, 1998). In alignment with the evaluation of this particular programmatic segment, the currently used office behavior referral was reviewed and compared to a model referral form (*Student Behavior Referral*), which contains the required fields on it as deemed necessary by leading PBS researchers (Behavior Report, 2000).

Phase Two included full staff training days, mini in-service sessions, bi-weekly core team meetings, archival record review, and monthly coaching sessions at faculty meetings. Informal, semi-structured observations were performed throughout the data collection phases of the program evaluation in order to aid triangulation of the data obtained and to gather accurate process information about the fundamental operation of the school-wide system aspect of the PBS program. Regular monitoring and evaluation were established based on recommendations from Todd, Horner, Sugai, & Sprague (1999) to prevent ineffective practices from wasting time and resources, improve the efficiency and effectiveness of current procedures, eliminate elements of the system that are ineffective or inefficient, and make modifications before problem behavior patterns became too durable and un-modifiable. Process data were collected during the second phase from the full day training sessions, periodic booster training sessions, and scheduled team and faculty meetings. Baseline data were assessed to determine the status of school-wide discipline and PBS in order to define short and long term goals for improving behavioral support programming. An implementation action plan was devised based upon the status of assessment that emphasized the adoption of research-validated practices.

Phase Three of the program evaluation process involved review of the targeted intervention data. This phase involved administration and review of findings from the *PBS Implementation Self-Assessment and Planning Self-Assessment* (Blueprint), the *theory-based implementation evaluation checklists*, individual semi-structured interviews, the focus group discussion, scores acquired from the *Systems-Wide Evaluation Tool (SET-SW)*, and recommendation action planning. The focal point of these evaluations was the culminating appraisal of the implementation of the school-wide PBS program. The benchmark referent for this task was the comparison of implementation components to that of the *Blueprint*. The

Effective Behavior Support (EBS) assessment, in conjunction with the planned intervention and implementation support checklists, served as a multi-level guide for appraising the implementation status of the school's PBS organizational system, and for supporting action plans developed. Finally, supplementary data obtained from the findings of the SET-SW were compiled and added to the data compilation of phase three. Applicable scores attained from the SET-SW were acquired to measure targeted outcomes in a quantifiable manner. The individual interviews were followed by a focus group discussion. The impact of the program on outcome measures was assessed by citing information obtained from outcome evaluation questions embedded within the individual semi-structured interviews and focus group discussion. Table 10 illustrates the three phases (i.e., A, B, C) with respect to the month in which the selected assessment protocols and means were employed.

Data collection and the effectiveness, efficiency, relevance, and conceptual soundness of the school-wide behavioral support program were evaluated by triangulating the data collected from multiple measures. Specific questions purposefully created to assess the economic efficiency and program sustainability acquired from the interviews and group discussion were paired with data obtained from the SET-SW score and other instruments administered. The program stakeholder perceptions tied with the relevant data secured purported to produce powerful findings that are both rich qualitatively and comprehensible quantitatively. Key components necessary for program implementation were embedded within the program implementation stages. Maher and Bennett (1984) describe these necessities as: (a) preconditions for operation (illustrating needed resources); (b) nature of method of activities; roles, responsibilities, and relationships of staff; and (c) sequence and timing of activities. Program implementers were able to effectively describe program delivery and identification of the

Table10

Study Phases for Program Implementation Training, Evaluation, and Data Collection Timeline

Month> *Activity*	**May '03**	**June '03**	**July '03**	**Aug. '03**	**Sept. '03**	**Oct. '03**	**Nov. '03**	**Dec. '03**	**Jan. '04**	**Feb. '04**	**Mar. '04**	**Apr. '04**	**May '04**	**June '04**
Program Selection	A	A												
Implementation Planning	A	A	A	A										
Staff Awareness Background Training	A	A	A	A										
Grant Writing			A	A	A									
EBS Survey				A	A									
Document Analysis and Record Review						A	A	A						
Full Staff 2-Day Training				B						B				
Mini-Sessions				B		B		B		B		B		B
Bi-Weekly Core Team Meetings				B	B	B	B	B	B	B	B	B	B	B
Monthly Faculty Meetings				B	B	B	B	B	B	B	B	B	B	B
Informal/Semi-Structured Observation									B	B	B	B	B	
PBS/COMP Checklists													C	C
Theory Checklists													C	C
SET-SW Score														C
Interviews														C
Focus Group Discussion														C
Blueprint/Theory Comparison – Program Recommendations														C

Note. The data collection procedures are separated into the three respective phases of program evaluation.

conditions under which the program was operating by assessing these components.

Instrumentation

The program evaluation instruments used in the study were selected to yield both quantitative and qualitative data, thus offering a comprehensive appraisal of the implementation

of the school-wide PBS program. Quantitative measures consisted of questionnaires, surveys, and checklists. Data secured from informal observations, the focus group discussion, and content from individual semi-structured interviews are presented in a qualitative format. The instruments used are listed in Table 11 relative to the evaluation phases in which they were employed. Brief descriptions of each instrument are provided in the ensuing paragraphs and copies of the actual protocols are provided in Appendices D-M.

Archival School Behavioral Record Review. Archived behavioral data was examined to supplement implementation findings. Data examined in this review included detentions, suspensions, office referrals, and data from the EBS survey and SET-SW results. In addition, limited supplemental data of classroom removals/time-out placements, counselor and/or school psychologist visits, and parent contacts were reviewed. Both office referrals and suspensions have been used as gauges of student behavior and have been advocated as valid ways of tracking school behavior patterns (Skiba, Peterson, & Williams, 1997; Taylor-Green et al., 1997; Tobin & Sugai, 1999; Wright & Dusek, 1998). Additional archived data included parent/building stakeholder annual survey information, in-service training evaluation responses, pre-implementation faculty needs assessment findings, and other quantifiable behavioral information (e.g., statistical and written records) on file within the school. The purpose of the review of the archived outcome data was to ascertain that these types of data were collected and maintained by the school to adhere with the mandates of PBS data-driven behavior reform.

The Effective Behavior Support (EBS) Survey. The EBS survey (Sugai, Horner, & Todd, 2003) was used to elicit evidenced-based findings. This assessment protocol met the evaluative purpose of the program, has been proven effective in other studies (Sugai, Horner, & Todd, 2000), and has been demonstrated to show high reliability as correlated with validating

Table 11

Data Collection Tools and Measures

Data Collection Instrumentation Tools and Evaluation Measures

Program Evaluation Phase	Research Question Addressed	Instrument/Procedure
A	I	Archival School Behavioral Record Review
A	II	EBS School-Wide Behavioral Support Survey
B	II	Strategies to Facilitate Effective Program Delivery Phases Checklist
B	I	Planned Intervention Checklist
B	II	Planned Implementation Support Checklist
B	I, II	Observation Program Implementation Checkpoints
B	I, II	PBS Implementation and Planning Self-Assessment Blueprint
C	II	Barriers to Implementation Checklist
C	I, II	Individual Semi-Structured Interview Questions
C	I, II	Focus Group Discussion Questions
C	I, II	System-Wide Evaluation Tool: School-Wide (SET-SW)

psychometric properties of the SET-SW (Sugai, Horner, & Todd, 2003). The instrument was designed to reveal information relative to types of student misbehaviors evidenced, settings, and solicit staff member's priority rankings of areas in need of remediation. The survey is divided into four behavior support systems: school-wide discipline, non-classroom management, classroom management, and systems for individual students engaging in chronic problem behaviors and is used to examine the status and need for improvement within each system. Information from this instrument providing insight into the program's implementation is illustrated in the school-wide summary (Table 18) in Chapter 4 and displayed in comparison graphs located in Appendix N.

The intent of the EBS survey was to obtain an accurate description of the school population's behavioral needs in order to develop an action plan for implementing and sustaining

effective behavioral support systems. The survey results were summarized and used for a variety of purposes including annual action planning, internal decision-making, assessment of change over time, awareness building of staff, and team validation. In addition, the findings were used to determine the status of PBS in the school buildings and to guide the development of an action plan for implementing and sustaining effective PBS systems within the school. The resulting action plan recapitulated the overall response from school personnel for each system on the status of PBS features and was developed to focus on the improvement priorities of the four EBS system areas assessed. School program leaders used the tally page and the summary graph derived from the EBS survey to develop accurate building-wide abstracts and to determine initial focus area priorities.

Strategies to Facilitate Effective Program Delivery Phases Checklist. The *Strategies to Facilitate Effective Program Delivery Checklist* (Greenberg, 2004) was designed for practitioners and school personnel to facilitate effective program delivery. Both the conceptual model and the contextual factors that can influence implementation in school-wide programs guide the checklist created. The three sections (phases) of this protocol are Pre-Adoption, Delivery, and Post-Delivery - including 23 probing questions that address implementation requirements such as stakeholder collaboration, training, and sustainability supports. The 23 items listed in the three sections pertain to each categorical heading (e.g., Pre-Adoption - *...key stakeholders in the decision making process*) to provide guidance to each respective phase of implementation. The checklist was designed for this study by adhering to the three framing phases and then devising questions derived from recommendations from Greenberg and colleagues work (2004) per respective phases. The checklist is provided in Appendix E.

Planned Intervention Checklist. The *Planned Intervention Checklist,* derived from the research by Greenberg and others (2004) and Chen's program theory work (1998), was created to assess the four dimensions of the planned intervention: Program Model, Quality of Delivery, Target Audience, and Participant Responsiveness. Contained within the four dimensions were 13 response items that were recorded and averaged as responded to by the district leadership team. Sample questions from this checklist included topics such as Nature of Intervention, Generalizations of Skills, and Perceptions. The four dimensions of the planned intervention were measured via documentation of meetings/outcomes (i.e., post training session evaluations), interviews (i.e., semi-structured interview), observations (i.e., quarterly implementation checklist), and review of chronicled district behavioral data to complete the checklist. The response format entailed: In Place, Partially in Place, and Not in Place. Supplementary qualitative information was also recorded, as afforded, in addition to the three response options participants were required to select from. A copy of the checklist is provided in Appendix F.

Planned Implementation Support Checklist. The *Planned Implementation Support Checklist* is presented in Appendix G. This checklist was derived from the same work by Greenberg and colleagues (2004) and Chen (1998). The protocol organizes the implementation support system into five dimensions (with 18 subcategorical questions) that are essential to most school-based intervention programs: Pre-Planning, Quality of Materials, Technical Support Model, Quality of Technical Support, and Implementer Readiness. These five dimensions were measured via interview response options and optional discussion submitted from the leadership team and supplemented by reference of documentation of meeting outcomes (i.e., post training session evaluations), interviews (i.e., semi-structured interview), observations (i.e., quarterly implementation checklist), and review of data (i.e., archived school records). The response

format was modeled after the *Planned Intervention Checklist*, provided the same response options of: In Place, Partially in Place, and Not in Place. Items from this support checklist included topics such as Incentive for Change, Design of Program Materials, Implementation Monitoring System, and Trainer Characteristics.

Observation Program Implementation Checkpoints. The observations of the ongoing program implementation were completed quarterly to gain information relative to the site and setting, including information pertaining to treatment integrity and other events or variables that may have inadvertently acted as barriers to the implementation. Observations were conducted on 09/26/03, 11/25/03, 01/30/04, and 04/20/04 by the project coordinator (PBS SERRC Consultant) utilizing the *Components Necessary for Program Implementation Checklist*. Components pertinent to program implementation as identified by Maher and colleagues (1984) deemed necessary for analysis by program leaders were incorporated into the checklist and contained the following elements: (a) preconditions for operation (i.e., human resources, informational resources, technological resources, financial resources, physical resources); (b) nature of methods and activities; (c) roles, responsibilities, and relationships of staff; and (d) sequence and timing of activities. Information recorded on this protocol was summarized to provide additional data (e.g., nature of methods and activities, operation conditions) to monitor progress of program implementation training as it progressed. In-service training evaluations, pre-implementation faculty needs assessment findings, and delivery phase activities were also reviewed at these quarterly checkpoints to supplement findings and offer implementation intervention guidance and maintenance. Blueprint items from the program's manual were assessed and each heading from the protocol (as applicable at the time of observation) were addressed. The log provided a guide and base-line starting point for the collection of these data for future comparison as well as

present data contributing to implementation verification. A sample checklist on which field data were logged is presented in Appendix H.

PBS Implementation and Planning Self-Assessment Blueprint. The *PBS Implementation and Planning Self-Assessment Blueprint* was designed for use by individuals who are interested in or are implementing school-wide PBS and/or are interested in tactics for sustaining or expanding their efforts (Sugai, 2002). The intended purpose of the Blueprint/COMP conceptual model was to enable the comparative evaluation of the definitions, descriptions, and guidelines of school-wide PBS practices and systems (i.e., program implementation). Key theory-based components embedded within this evaluation were cross-examined to identify what planned features had actually been implemented, to what extent, and in order to generate additional recommended programmatic features deemed necessary for potential future implementation. This instrument was designed to serve as a multi-level guide for appraising the status of PBS organizational systems and developing and evaluating PBS action plans. The guidelines for its use entailed: (a) form a team to complete the self-assessment; (b) specify how the self-assessment information will be used; (c) consider existing behavior-related efforts, initiatives, and/or programs currently in place; and (d) review existing behavior-related data (i.e., suspension/expulsions, behavior incidents, discipline referrals, attendance, achievement scores, dropout rates). The planning tool is comprised of two main headings: PBS self-assessment checklist and action plan for start-up activities. Within the first categorical headings are nine integral subheadings (19 questions) that address: leadership team, coordination, funding, visibility, political support, training capacity, coaching capacity, demonstrations, and evaluation. Response options (Yes, Partial, No) – as completed by the building leadership team, were in reference to "In Place Status." The second section (Leadership Team Action Planning) included

nine sub headings: Leadership Team, Coordination, Funding, Visibility, Political Support, training Capacity, Coaching Capacity, Demonstrations, and Evaluation. Under each of these headings were bulleted prompts to assist respondents in recording activity task comments. An example for one sub heading is as follows: Political Support - Student social behavior one of top five goals, Annual leadership team report to political unit, PBS policy statement, Administrative participation and support. The *PBS Implementation and Planning Self-Assessment Blueprint* is represented in Appendix I.

Barriers to Implementation Checklist. The *Barriers to Implementation Checklist* was used to identify contextual factors that may have affected program implementation. These factors were identified through documentation of meeting outcomes (e.g., post training session evaluations), data reference (e.g., school data review), and interviews/observation (e.g., semi-structured interviews, focus group discussion, observation checklist). Barrier identification was conducted in order to identify and address potential obstacles that the school may have encountered in their efforts to provide the necessary infrastructure and climate to facilitate successful program implementation. A checklist with an expository notation component for recording qualitative observed/solicited data for each question was constructed that summarized these potential barriers to implementation. Response options that the leadership team selected from included Poor, Fair, Good, and Excellent. Topical headings of the instrument evaluated pre-planning tasks, the implementation support system and environment, implementer factors, and program characteristics. Questions under each heading (22 total) included items such as Awareness, Communication, Resource Allocation, Implementer Support, and Quality of Materials. A copy of the *Barriers to Implementation Checklist is provided* in Appendix J.

Individual Semi-Structured Interviews. Individual Semi-Structured Interviews were conducted with randomly selected participants in order to acquire a deeper understanding of their impressions and experiences (Linney & Wandersman, 1990). A copy of the interview is provided in Appendix K. The interview and subsequent focus group discussion questions were selected and designed in part from the *Team Implementation Checklist* developed by Sugai, Horner, and Lewis-Palmer (2001) and the *PBS Implementation and Planning Self-Assessment* (University of Oregon, 2002). In addition, questions related to record review data collected, survey responses, checklist information, and comparative analysis of the key components from the PBS Blueprint were integrated into the interview protocol. The content for other questions created and administered where obtained in part or whole from similar studies conducted (Colvin, Sugai, Good, & Lee, 1996; Colvin, Kame'enui & Sugai, 1993; Lewis, Colvin, & Sugai, 2003; Lewis, Sugai & Colvin, 1998; Taylor-Greene, et al., 1997; Todd, Horner, Sugai, & Sprague, 1999; Sugai, Sprague, Horner, & Walker, 2000). Response options for the 30 interview questions were: Achieved, In Progress, and Not Started. The eight categorical headings of the survey included: Establish Commitment, Establish and Maintain Team, Self-Assessment, Establish School-Wide Expectations, Establish Information System, Build Capacity for Function-Based Support, and On-going Activity monitoring.

Focus Group Discussion Questions. The focus group discussion, conducted in August of 2004, was a culminating experience in which program implementation was explored and evaluated in detail. Outcomes from this discussion further facilitated stakeholders' thinking about what their program is all about, including its purported goals and their alignment with the major tenets of the PBS initiative, and how they will know if their program had been effectively implemented. A predetermined interview guide to direct discussion addressed reactions to data

presented and suggestions, identified program strengths and weaknesses, and other phase-specific items that contributed to the program evaluation. Preparation, question development, planning, facilitation, and follow up of the focus group meeting adhered to guidelines established in *A Basic Guide to Program Evaluation* (McNamara, 1998).

Data gathered from interview questions, record review items, SET-SW scores, and results from various checklists were embedded within the questions created for the focus group (see Appendix L). Eight questions were created that recapitulated the overall program implementation, including reference to data from previously completed protocols (i.e., Blueprint, SET-SW, EBS Survey). Questions seven and eight directly assessed the two guiding questions of the research endeavor (i.e., planned intervention, planned implementation support system). The focus group discussion was conducted with the same randomly selected personnel who participated in the semi-structured interviews and was intended to explore individuals' perceptions of program implementation.

System-Wide Evaluation Tool: School-Wide (SET-SW). The *SET-SW* (Horner, Todd et al., 2004; Sugai et al., 2001) is used to evaluate implementation of the primary prevention systems and practices associated with SWPBS that submit a School Profile. The SET-SW is a research instrument for measuring implementation of school-wide PBS procedures and is composed of 28 items across seven subscales. It was designed to assess and evaluate the critical features of school-wide behavioral support systems by obtaining ratings from both independent observers and program implementers (Sugai, Lewis-Palmer, Todd, & Horner, 1999), which provide trend lines of improvement and sustainability over time through annual administration. The SET-SW involved a review of systems outcomes containing questions incorporating information obtained from the school's permanent products (i.e., discipline handbook, school improvement plan,

instructional materials, meeting minutes) and staff interviews. The protocol was assessed in the school in the fall of 2004 to monitor the fidelity of PBS implementation and provide a thorough measure of prevention practices of the school-wide behavior support program that were implemented.

The SET-SW involved document review, interviews, and direct observation. Specified school behavioral data were assessed in the building and solicited from personnel collaboratively by the project coordinator, investigative researcher, and with the established school PBS leadership team. Data collected from key products that were collected and incorporated into the SET-SW completion (i.e., behavioral incident summaries or reports, etc.) may be viewed in Appendix M. The SET-SW results were used to assess features that were in place, determine annual goals for school-wide effective behavior support, evaluate on-going efforts toward school-wide behavior support, design and revise procedures as needed, and to compare efforts toward school-wide effective behavior support from year-to- year via annual administration. Results obtained afforded the school with a measure of the proportion of features that were not targeted or started, in the planning phase, and in the implementation or maintenance phases of implementation toward a systems approach to school-wide PBS. The conceptual logic that is the foundation for the structure and intended use of the instrument provided a framework for ongoing validity of the SET-SW for research-related interpretations and uses (Messick, 1988).

In a report by The University of Oregon (Homer et al., 2004), data were presented describing data documenting and validation of the psychometric properties of the SET-SW. To evaluate the psychometric adequacy of the SET-SW as a research tool, Horner and associates (2004) had trained observers/data collectors obtain SET-SW data from 45 schools. Data analyses included: (a) calculations of means, variances, and discriminability indices of subscale items and

total scores; (b) observer agreement and correlational analyses for examining reliability of SET-SW scores; and (c) correlational and sensitivity-to-change analyses examining validity of SET-SW scores for specific interpretations and uses. Methods used to examine the reliability and validity of the SET-SW and results describing the conceptual basis and psychometric characteristics of the measure are presented in Table 12.

Table 12

Psychometric Adequacy Analyses of SET-SW

SET-SW Means, Ranges, and Standard Deviations
SET-SW scores demonstrated adequacy of central tendencies and variability for sensitivity at all three levels: item, subscale, and total.
Reliability
Internal consistency reliability results documented an overall alpha of .96.
Test-retest reliability of the SET-SW total score averaged 97.3%.
Average interobserver agreement on SET-SW items across the schools was 99% (range = 98.4-100%).
Validity
SET-SW subscale construct validity intercorrelations were moderate to moderately high, ranging from $r = .44$ to $r = .81$
SET-SW sensitivity data for pre-PBS implementation yielded an average score of 47.9% and an 83.6% post-SET-SW total score
A paired t test comparing pre-SET-SW and post-SET-SW means generated at $t = 7.63$ ($df = 12$), $p \leq .001$, demonstrating that the SET-SW is sensitive to implementation changes beyond those attributable to chance.

Note. Data abstracted from "The School-Wide Evaluation Tool (SET-SW): A Research Instrument for Assessing School-Wide Positive Behavior Support," by R. Horner, A. Todd, T. Lewis-Palmer, L. Irvin, G. Sugai, and J. Boland, 2004, Journal of Positive Behavior Interventions, 6, pp. 5-9. Reprinted with permission.

The data presented by Horner et al. (2004) demonstrate that the SET-SW meets and exceeds basic psychometric criteria for measurement tools used in research. The instrument has been administered with high inter-observer agreement (Lewis & Sugai, 1999), demonstrates excellent test-retest reliability, can produce a valid index of school-wide PBS, and is sensitive

enough to be useful in documenting change in levels of implementation of school-wide PBS programs. For evaluation purposes, schools may be deemed as implementing the primary prevention practices of school-wide PBS when both the SET-SW total (overall summary) and the Expectations Taught subscale scores are at least 80% (Horner, Todd et al., 2004).

Analysis of Data

Data were analyzed using both descriptive statistics and qualitative methods. More specifically, quantitative data are presented as means, standard deviations, and ranges. It is important to reiterate that this was not a study of the influence of PBS on child outcomes, but an examination of a program evaluation model. Basic analysis of qualitative information included organizing comments into similar categories, labeling the categories or themes, and identifying patterns or associations and causal relationships among the themes. In addition, intervention and implementation discrepancies attending to implementation fidelity were identified in defining the program as implemented. The following sections provide the data reduction/analysis procedures employed for each instrument.

Archival School Behavioral Record Review. Both quantitative and qualitative data was reviewed via the record review of archived school behavioral data. Quantifiable data examined was abstracted from the building's annual behavioral report (i.e., detentions, suspensions, office referrals). Other statistical findings assessed included data from the EBS district-wide survey and latter retrieved SET-SW results. Summaries from the annual building and parent surveys were reviewed, cross-referencing their major findings to the chief outcomes from the EBS and SET-SW respectfully. A defined system for officially tracking classroom removals/time-out placements, counselor and/or school psychologist visits, and parent contacts had not been established by the building at the time of evaluation. Qualitative discussions and estimates for

frequency and duration of incidents were shared, but not definitive enough to produce factual data. This information, in addition to in-service training evaluation responses and pre-implementation faculty needs assessment findings were reviewed to supplement and authenticate the data findings from the quantitative measures employed.

The Effective Behavior Support (EBS) Survey. The EBS survey elicited quantitative data in two targeted areas for four behavior support systems. Feature questions from each of the four areas assessed required respondents to denote their perception of the current status (i.e., In Place, Partially in Place, Not in Place) and their ranking of priority for improvement (i.e., High, Medium, Low). Quantitative data obtained provided an accurate description of the status and need for improvement within each behavioral system. Tallied behavioral need data was then charted, listing three major strengths and three major areas in need of development in order to develop of an action plan. In culmination, activities of focus were defined to support each area targeted for development (e.g., Define a measurement system linked to school improvement goal, Create a process for referral and support plan design, implementation and monitoring).

Strategies to Facilitate Effective Program Delivery Phases Checklist. This assessment was divided into three sections (Pre-Adoption, Delivery, and Post-Delivery) and had a combined total of 23 questions. Each question entailed four response options (Poor, Fair, Good, Excellent) that yielded quantitative data. Additional qualitative data was recorded for each question as solicited from respondents. Though no official coding methodology was employed in assessing the oral supplemental responses provided/recorded, common themes (e.g., …insufficient communication with stakeholders *[faculty, school meetings, parents/community members]*) were highlighted on the protocol and grouped into similar categorical themes for further discussion and future decision-making to facilitate effective program delivery.

Planned Intervention Checklist / *Planned Implementation Support Checklist*. Both of these protocols were identical in design, aligning to the two investigative research questions of this study. The *Planned Intervention Checklist* assessed the four dimensions of the planned intervention and the *Planned Implementation Support Checklist* assessed the five dimensions of the implementation support system. The response format for each checklist yielded quantitative data from the averaged response options. Response options (In Place, Partially in Place, and Not in Place) were solicited from a total of 31 subcategorical questions of each checklist (13 and 18 respectfully). Data collected from meeting outcomes, interviews, observations, and district behavioral data was furnished to respondents for review to aid their response selections. Additional space was provided under each of the 31 probes to solicit accompanying qualitative data to augment the responses provided by the building leadership team. Though each respondent elected to not provide written supplemental information for each question, emerging patterns/associations were again highlighted and collaboratively discussed. The casual relationships documented from the limited responses were revisited during the focus group discussion (e.g., question #5, et al.).

Observation Program Implementation Checkpoints. The SERRC team member completed quarterly observations utilizing the *Components Necessary for Program Implementation Checklist*. No quantitative data was recorded; rather, brief qualitative interpretation was logged and summarized to monitor program implementation training progress and review/use with other assessment procedures performed (e.g., *Barriers to Implementation Checklist, Planned Intervention Checklist, Planned Implementation Support Checklist)*. Example notations summarized from all four observations from the first checkpoint heading (Preconditions for operation) were:

Human resources - *All staff were teachers, ranging in experience from 1 year to 30+ years in the field.*
Informational resources - *All teachers in the system were offered this program. The superintendent offered stipends and the group was offered college credit or CEUs.*
Technological resources - *COMP Manuals; Overheads; Breakfast served.*
Financial resources - *A $22,000.00 budget was secured from an ODE grant for PBS.*
Physical resources - *All meetings were held in the "old" cafeteria.*

Additional assessment items (post in-service training evaluations, pre-implementation faculty needs assessment findings, Blueprint headings) were also referenced in completing each observational checkpoint.

PBS Implementation and Planning Self-Assessment Blueprint. This first portion of this assessment measure entailed 19 questions under nine integral subheadings that produced straightforward quantitative data. Building leadership team members were required to respond Yes, Partial, or No to each question with regard to the "In Place Status" of the school-wide PBS practices and systems. The second section of the protocol (Leadership Team Action Planning) was comprised of nine sub headings with assistive prompts to record open-ended responses that were qualitative in nature. A summary statement was generated for each of the nine sections as derived from the activity tasks comments provided. This information aided the comparative evaluation of the definitions, descriptions, and guidelines of school-wide PBS practices and systems.

Barriers to Implementation Checklist. The *Barriers* checklist was comprised of 23 questions under the three headings of Pre-Planning, Implementation Environment, and Implementer Factors. Basic quantitative data was collected on contextual factors that may have affected program implementation by having respondents select from the response options of Poor, Fair, Good, and Excellent. Additional space was provided under each question for optional comments to provide supplemental qualitative data to their selected responses. Documentation

from interviews, observations, and post training session evaluations were furnished to aid decision-making. Common themes of intervention and implementation discrepancy were summarized and grouped (albeit formal coding) from the limited expository responses provided for later implementation fidelity discussion during the focus group session.

Individual Semi-Structured Interviews. Individual interviews yielded quantitative data from 30 questions framed by eight categorical headings. Achieved, In Progress, and Not Started were the response selection respondents chose from (see Chapter 4 for graphed results). Oral justification was solicited and recorded (written and audio-taped) for each question during the interview process. Written interview responses were later revised for accuracy by listening to the recorded sessions. Interview transcriptions were performed by first grouping all recorded (written) responses under their respective question. Next, grouped responses for each question were reviewed and common themes listed. Lastly, patterns and associations were identified from all of the common themes and collectively discussed during the subsequent focus group discussion.

Focus Group Discussion Questions. The focus group discussion was designed to explore stakeholders' perceptions of the overall PBS program implementation after one year of execution. Eight open-ended questions on the protocol solicited qualitative responses from each participant that were recorded on an audiotape. The interview guide including reference to data from previously completed protocols (i.e., Blueprint, SET-SW, Individual interviews, EBS Survey), in which findings from each were shared after reading each question to the convened group. Participants collaboratively as a group produced themed summaries for each of the eight questions. These abridgements were later verified for accuracy by reviewing the audio recording of the session. The focus group discussion produced 5 coded segments (barriers to effective

support, practical solutions, student behavior, program leadership, useful information/tools) and resulted in the identification of fifteen themes (e.g., *adequate training has been provided, though coordination and communication to all stakeholders is limited*). A final report was created from the results and provided to the district after completion of the study.

System-Wide Evaluation Tool: School-Wide (SET-SW). The *SET-SW* was performed to acquire quantitative data that assessed and evaluated the critical features of the building's school-wide behavioral support systems. The evaluation tool was completed by the primary investigator under the guidance of a trained SET-SW administrator (SERRC consultant). The project coordinator, investigative researcher, and the building leadership team collaboratively acquired behavioral data required by the tool. The research instrument is composed of 28 items across seven subscales (see Chapter 4 for graphed results – building profile). Quantitative ratings were obtained (score of 0-2) for each of the questions as dictated by the data source requested for use by the protocol (i.e., product and/or observation/interview). Staff/student interview questions and team member interview questions listed on the SET-SW were incorporated into/answered during the individual interviews and focus group discussion respectfully. Findings accrued provided building leaders with a measure of the proportion of features of implementation (targeted or started, in the planning phase, in the implementation or maintenance phases) toward a systems approach to school-wide PBS.

Barriers That Reduce Implementation Quality

Contextual factors ranging from the classroom to the community that may affect program implementation were identified. A list of potential barriers to the school-wide program's implementation (Table 5) was presented in Chapter 2. Since these barriers may reduce implementation quality, they were evaluated via completion of a barrier identification protocol

with supplemental assessment data from interviews, observations, and a focus group discussion. Information obtained served to identify and address potential obstacles that the school may encounter in their efforts to provide the necessary infrastructure and climate to facilitate successful program implementation. Findings gathered from this procedure were shared with program leaders during the post-delivery phase of implementation and are discussed in the study's recommendation section (Chapter 5) since they are pertinent to the theory-driven foundation for studying program implementation in school-based settings.

Summary

In this chapter, information was presented about the participants and the methods used in this study. A general overview was presented that included a description of the PBS intervention and development of the school-wide PBS program. The guiding research questions detailing both the planned intervention and implementation support system were presented, listing contextual factors and barriers to the program implementation. Site selection specifics detailing the participant sampling and selection process followed, offering details regarding the training content and implementation procedures. Following the instruction programming and employment segment, information was presented describing the overall procedures and experimental design of the program implementation evaluation. The chapter concluded by describing the evaluation protocols used in the study and how data was collected and used with these instrumentation measures. Collectively, the methodology presented in this chapter carried out the evaluative procedures of the implementation of the school's school-wide behavioral support program (PBS). Through utilization of the described research approach methodology, the implementation of the program implementation phase of PBS was evaluated via a theory-driven perspective.

CHAPTER FOUR

RESULTS

The data reported in this chapter are both qualitative and quantitative in nature reflecting the purpose of the study design and measures used to evaluate the efficacy of a district-wide behavioral support program. A list of evaluation measures organized by respective phases of program evaluation and research questions addressed is presented in Table 13. Given the complexity of the study design and measurement, data will be presented in two parts: descriptive and comparative. Nominal/qualitative data and descriptive/quantitative data will be presented first. These data will be organized by Program Evaluation Phase (Pre-Adoption, Delivery, Post-Delivery). Comparative analyses will be presented second. Appendix Q provides a list of response option rubrics and accompanying descriptors that were provided to participants during assessment as a visual aid to help frame their response selections.

Pre-Adoption Phase

The first phase of the program implementation catered to the pre-adoption tasks of the school-wide behavioral support program. Archival school behavioral record review was primarily conducted during this phase, reviewing preceding and current district behavioral data. The initial school-wide survey - *EBS School-Wide Behavioral Support Survey* was also administered during this phase at the beginning of the 2003-2004 school year. Table 14 illustrates the response totals obtained from program leaders during the Pre-Adoption Phase. Questions 1-10 for phase one yielded a 66.33% mean response equating to the rating of "Good' in assessment of the program implementation of the Pre-Adoption Phase. Questions for the Pre-Adoption Phase from the *Strategies to Facilitate Effective Program Delivery* protocol may be viewed in Appendix E.

Table 13

Data Collection Instrumentation Tools/Evaluation Measures

Program Evaluation Phase	Research Question*(s)* Addressed
A - (Pre-Adoption)	
Archival School Behavioral Record Review	I
EBS School-Wide Behavioral Support Survey	II
B - (Delivery)	
Strategies to Facilitate Effective Program Delivery Phases Checklist	II
Planned Intervention Checklist	I
Planned Implementation Support Checklist	II
Observation Program Implementation Checkpoints	I, II
PBS Implementation and Planning Self-Assessment Blueprint	I, II
C - (Post-Delivery)	
Barriers to Implementation Checklist	II
Individual Semi-Structured Interview Questions	I, II
Focus Group Discussion Questions	I, II
System-Wide Evaluation Tool: School-Wide (SET-SW)	I, II

Archival School Behavioral Record Review

Documentation record review of archived behavioral data was analyzed from multiple sources to augment findings with regard to implementation and is illustrated in ensuing tables. School behavioral data reviewed included detentions, suspensions, office referrals, qualitative data on classroom removals/time-out placements, counselor and/or school psychologist visits, parent contacts and data from the EBS survey and SET-SW results. Past and present district

Table 14

Pre-Adoption Phase – Response Data

	Survey Questions									
Rating	*n* 1	*n* 2	*n* 3	*n* 4	*n* 5	*n* 6	*n* 7	*n* 8	*n* 9	*n* 10
Poor	0	0	0	0	0	0	0	0	0	0
Fair	1 37.5	0	0	0	0	1 37.5	0	1 37.5	1 37.5	0
Good	2 125	2 125	3 187.5	3 187.5	2 125	2 125	2 125	2 125	2 125	2 125
Excel.	0	1 87.5	0	0	1 87.5	0	1 87.5	0	0	1 87.5
Σn	162.5	212.5	187.5	187.5	212.5	162.5	212.5	162.5	162.5	212.5
$\bar{x}$	54.17	70.83	62.5	62.5	70.83	54.17	70.83	54.17	54.17	70.83
Rating	Good	Excel.	Good	Good	Excel.	Good	Excel.	Good	Good	Excel.
s^2	207.79	209.04	0	0	209.04	207.79	209.04	207.79	207.79	209.04
s	14.41	14.46	0	0	14.46	14.41	14.46	14.41	14.41	14.46

$\bar{x}$ Response Ratings = 66.33 $\bar{x}$ Rating = Good (N = 3)

Note: Quantitative value allocations: 0-25% = Poor (12.5%); 26-50% = Fair (37.5%); 51-75% = Good (62.5%); and 76-100% = Excellent (87.5%).

behavioral data (e.g., office referrals, detentions, suspensions, Saturday schools) were examined through document analysis and record review. Additional archival record review data collected included parent/building stakeholder annual survey information, in-service training evaluation responses, pre-implementation faculty needs assessment findings, and other quantifiable behavioral records and products used that were on file within the district.

2002-03 - 2003-2004 School Year Comparisons

Detentions. Annual detentions were comparatively analyzed in adherence to PBS procedure requirements, though in brevity since the primary purpose of the study focused on implementation rather than outcome evaluation. To illustrate these results, a table was created (Table 15) to draw a distinction between gender, age, grade level, buildings, and months. Though

Table 15

Detention Comparison – Grade level, Gender, Quarters, Annual

	1st Qtr			2nd Qtr			3rd Qtr			4th Qtr				
Grade/Year	M	F	C	M	F	C	M	F	C	M	F	C	Σ*n*	$\bar{x}$ / ¼
K-8/('02-03)	10	4	14	16	5	21	12	4	16	17	5	22	73	18.25
K-8/('03-04)	8	3	11	10	3	13	8	4	12	4	2	6	42	10.5
Difference (*n*)	2	1	3	6	2	8	4	0	4	13	3	16	31	7.75
Change ($\bar{x}$)	.2	.25	.21	.38	.4	.38	.33	0	.25	.76	.6	.73	(K-8) Year .42	42%
9-12/('02-03)	21	11	32	25	9	34	22	7	29	32	9	41	136	34
9-12/('03-04)	22	7	29	16	7	23	13	5	18	17	4	21	91	22.75
Difference (*n*)	-1	4	3	9	2	9	9	2	11	15	5	20	45	11.25
Change ($\bar{x}$)	-.05	.36	.09	.36	.22	.26	.41	.29	.38	.47	.56	.49	(9-12) Year .33	33%
District (K-12) Year > [('02-03) Σ*n* = 209] – [('03-04) Σ*n* = 133] = 76 {36% Reduction}														

Note. Table 15 illustrates a 2-year comparison in pre/post fashion of detentions assigned by gender and building grade levels per quarter. M = Male, F = Female, and C = Combined.

not conclusive from the measures employed by this study, slight reductions in detentions administered were recorded in comparing the year prior to and after year one of program implementation.

Saturday Schools/In-School Suspensions. In-school suspensions and Saturday schools were used as discipline options by the district for severe behavioral infractions and/or accumulative minor misbehaviors at administrator discretion. Table 16 illustrates the number of Saturday school detentions and In-School Suspensions assigned during the 2003-04 school year. The total quantity per quarter is listed, which includes students who may have received one or

Table 16

Saturday School Detention/In-School Suspensions Assigned (2003-04)

Saturday School Detentions

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Number of Saturday schools assigned	30	61	20	30	*141
Number of students receiving a Saturday school	17	25	13	18	**37
Highest quantity of Saturday schools assigned to student per quarter	4	9	4	5	*(1 = Lowest)*

Highest quantity of Saturday schools assigned per student for school year: 22

Percentage of student population receiving a Saturday school: 37 / 580 = 0.06%

In-School Suspensions

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Number of in-school suspensions assigned	6	7	21	39	*73
Number of students receiving an in-school suspension	4	2	10	16	**20
Highest quantity of in-school suspensions assigned to student per quarter	2	4	5	4	*(1 = Lowest)*

Highest quantity of in-school suspensions assigned per student for school year: 14

Percentage of student population receiving an in-school suspension: 20 / 580 = 0.03%

Table 16 Continued

Reason	1st Quarter # of students / # of days	2nd Quarter # of students / # of days	3rd Quarter # of students / # of days	4th Quarter # of students / # of days	Total **# of students / *# of days
Behavior	1 / 2	1 / 4	3 / 6	4 / 9	**7 / *21
Excessive Tardies	*0*	*0*	*0*	3 / 9	**3 / *9
Make Up Time	*0*	*0*	4 / 8	3 / 10	**4 / *18
Truancy	*0*	*0*	1 / 1	1 / 1	**2 / *2
Fighting/Violence	1 / 1	*0*	2 / 6	5 / 10	**8 / *17
Tobacco	1 / 2	1 / 3	*0*	*0*	**2 / *5

Note. *Includes students who received multiple Saturday Schools/In-School Suspensions and **indicates the number of students who received one or more Saturday Schools/In-School Suspensions.

more Saturday school detentions. The lower portion of the table lists the total quantity of in-school suspensions assigned during the 2003-04 school year. The quantity is also sectioned by school quarters and further broken down into categorical reasons for their distribution.

EBS School-Wide Behavioral Support Survey

The survey results obtained from representative district stakeholders were collected prior to the start of the 2003-04 school year for analysis to assess and plan the behavior support within the district. Survey results were summarized and used to guide the development of an action plan for improving EBS (e.g., annual action planning, internal decision-making, assessment of change over time, awareness building of staff, team validation). The survey summary composed was used to develop an action plan for the purpose of implementing and sustaining effective behavioral support systems throughout the district using result data from the four EBS system areas. The three basic phases of the assessment protocol involved *Summarizing the results*, *Analyzing and prioritizing the results*, and *Developing the action plan*.

Phase One (Summarize the Results). The objective of Phase 1 of the survey was to produce a descriptive visual that summarizes the overall responses of school stakeholders for

each system on the status of the EBS features and improvement priorities. Questions for this section of the survey for each system area may be reviewed in Appendix D. Results from classified and certified personnel for the four EBS systems assessed are illustrated for each system in Table 17 indicating current status and priority for improvement stakeholder perception averages.

Table 17

Current Status & Priority for Improvement Summary of PBS Systems

	School-wide - Current Status										
	School-wide		Non-Classroom		Classroom		Individual Student		All Systems		$\bar{x}$
Status	(C)	(L)	(C)	(L)	(C)	(L)	(C)	(L)	(C)	(L)	(C+L)
In Place	32	41	31	40	43	51	55	27	40.25	39.75	40%
											$\bar{s}$ = .35
Partially in Place	44	36	48	39	47	44	33	33	43	38	40.5%
											$\bar{s}$ = 3.54
Not in Place	24	23	21	21	10	5	12	40	16.75	22.25	19.5%
											$\bar{s}$ = 3.89
	School-wide - Priority for Improvement										
	School-wide		Non-Classroom		Classroom		Individual Student		All Systems		$\bar{x}$
Status	(C)	(L)	(C)	(L)	(C)	(L)	(C)	(L)	(C)	(L)	(C+L)
In Place	28	28	22	24	21	35	48	16	29.75	25.75	27.75%
											$\bar{s}$ = 2.83
Partially in Place	44	44	48	53	44	41	41	42	44.25	45	44.63%
											$\bar{s}$ = -0.79
Not in Place	28	28	30	23	35	24	11	42	26	29.25	27.63%
											$\bar{s}$ = 2.17

Note. (C = Classified personnel; L = Licensed/certificated staff).

The first system analyzed was the school-wide system that involves all students, staff, and settings. The second system examined pertained to non-classroom settings describing particular times or places where supervision is emphasized. The third system investigated classroom settings, which may be defined as instructional settings in which teachers supervise and teach groups of students. The fourth and final system evaluated was individual student systems, which involves providing specific supports for students who engage in chronic problem behaviors. The cumulative mean responses (classified and certified personnel) for each system feature from the EBS survey are listed in Table 18 indicating response question totals and respective percentile averages for both current status and priority for improvement perceived.

Table 18

EBS School-Wide Survey Results

Current Status				Priority for Improvement		
In Place	Partially In Place	Not In Place	System/Feature	High	Med	Low
308 *39%*	308 *39%*	184 *23%*	*School-wide* is defined as involving all students, staff, and settings.	187 *28%*	292 *44%*	184 *28%*
185 *38%*	206 *42%*	101 *21%*	*Non-classroom* settings are defined as particular times or places where supervision is emphasized.	93 *23%*	204 *51%*	101 *25%*
265 *50%*	238 *48%*	29 *01%*	*Classroom* settings are defined as instructional settings in which teachers supervise and teach groups of students.	141 *32%*	182 *42%*	112 *26%*
107 *31%*	115 *33%*	124 *36%*	*Individual student* systems are defined as specific supports for students who engage in chronic problem behaviors.	113 *43%*	95 *41%*	26 *16%*

Phase Two (Analyze and Prioritize the Results). The objective of Phase 2 of the EBS survey was for the team to narrow the focus of Action Plan activities. The team also included other data and information (e.g., office discipline referrals, behavior incident reports, attendance) to refine their decisions, utilizing the EBS Survey Summary to guide and document their data analysis. Team members used the EBS Survey Summary Graph results to rate the overall perspective of EBS implementation by circling *High*, *Medium*, or *Low* for each of the four system areas. Next, program leaders used the EBS Survey Tally pages and listed the three major strengths in each of the four system areas. From here, district stakeholders then identified the three major areas in need of development and circled one priority area for each system to focus development activities. During a subsequent training session with all personnel, convened participants used the acquired data to narrow and define the activities for the 2003-04 school year, specifying *Classroom Settings* as the area selected for development. Individual comparative graphs for each system illustrating the EBS survey tabulated results from all staff (certificated and classified) are located in Appendix N.

Phase Three (Use the EBS Survey Summary Information to Develop the EBS Annual Action Plan). The objective of Phase 3 from the survey required team members to develop an action plan for meeting the school improvement goal in the area of school-wide behavior support. Team leaders integrated multiple data sources when developing the action plan. The EBS survey summary page was completed to abridge the survey information and was a useful tool when developing their annual PBS action plan and determine initial focus area priorities.

Delivery Phase

The second phase of the program implementation catered to the actual delivery of the school-wide behavioral support program. The *Planned Intervention Checklist* and *Planned*

Implementation Support Checklist, which tie directly into the two research questions respectfully, were administered during this phase with the program's building leadership team. The PBS consultant from the West Central Ohio SERRC conducted observation checkpoints of the program implementation by completing a standard form at scheduled quarterly checkpoints. The *PBS Implementation and Planning Self-Assessment (Blueprint)*, a protocol often utilized in PBS studies, was also assessed during this program implementation phase. Table 19 illustrates the responses obtained during phase two of the *Strategies to Facilitate Effective Program Delivery Phases Checklist*, utilizing the same quantitative value allocations from program leader responses. Questions 1-6 for phase two yielded a 47.22% mean response equating to the rating of "Fair' in assessment of the program implementation of this phase. Appendix E lists the individual questions for the delivery phase from the *Strategies to Facilitate Effective Program Delivery* protocol.

Planned Intervention (Checklist)

The four main headings for verification of the planned intervention included review of the program model, quality of delivery, target audience, and participant responsiveness. Quantitative value ranges were created and assigned to implementation appraisal statements to assess stakeholder perceptions on the *Planned Intervention Checklist*. The four response options were divided into quartile percentage ranges (i.e., 0-25%, 26-50%, 51-75%, 76-100%), with the mean percentile of each range being assigned to each statement (i.e., Not in Place = 12.5%, Somewhat in Place = 37.5%, Satisfactorily in Place = 62.5%, In Place = 87.5%). Table 20 provides a summary of the averages for each area of the planned intervention, including individual results for each subcategory.

Table 19

Delivery Phase – Response Data

	Survey Questions					
Rating	*n* 1	*n* 2	*n* 3	*n* 4	*n* 5	*n* 6
Poor	1 12.5	0	0	1 12.5	0	1 12.5
Fair	0	1 37.5	2 75	2 75	1 37.5	1 37.5
Good	2 125	1 62.5	1 62.5	0	2 125	0
Excellent	0	1 87.5	0	0	0	1 87.5
Σn	137.5	187.5	137.5	87.5	162.5	137.5
$\bar{x}$	45.83	62.5	45.83	29.17	54.17	45.83
Rating	Fair	Good	Fair	Fair	Good	Fair
s^2	833.79	625	208.79	208.04	207.79	1408.79
s	28.88	25	14.45	14.42	14.41	37.53

$\bar{x}$ Response Ratings = 47.22 $\bar{x}$ Rating = Fair (N = 3)

Note: Quantitative value allocations: 0-25% = Poor (12.5%); 26-50% = Fair (37.5%); 51-75% = Good (62.5%); and 76-100% = Excellent (87.5%).

Segments of the program model entailed review of the structure, content, timing, dosage, and nature of intervention. A mean of 67.5% was calculated from participant responses indicating an appraisal of satisfactorily in place. In reviewing the quality of delivery, the affective nature of degree of engagement, effective use of implementation, techniques, and generalization of skills were analyzed. A rating average of 56.94% was calculated, also indicating a satisfactorily in place ranking. The actual program recipients constituted the third subheading for evaluation of the planned intervention assessment. Another satisfactorily in place deliberation from interviewed personnel was found (mean = 62.5%). Perceptions, skills, knowledge, and beliefs comprised the final heading of participant responsiveness in investigation the planned intervention. A 62.5% average, satisfactorily in place, was generated from

Table 20

Planned Intervention Checklist – Results

I. Program Model		Not In Place	Somewhat In Place	Satisfactorily In Place	In Place	Results $\bar{X}$
1. Structure		0	0	3	0	62.5
2. Content		0	0	2	1	70.83
3. Timing		0	0	2	1	70.83
4. Dosage		0	0	2	1	70.83
5. Nature of Intervention		0	0	3	0	62.5
(N = 3)	Σn	0	0	12	3	67.5%
(n = 5)	s	0.0	0.0	0.55	0.55	4.53

Program Model Rating = *Satisfactorily in Place*

II. Quality of Delivery						
1. Affective Nature of Degree of Engagement		0	1	2	0	54.17
2. Effective Use of Implementation Techniques		0	1	2	0	54.17
3. Generalization of Skills		0	0	3	0	62.5
(N = 3)	Σn	0	2	7	0	56.95%
(n = 3)	s	0.0	0.57	0.60	0.0	4.82

Quality of Delivery Rating = *Satisfactorily in Place*

III. Target Audience						
1. Actual Program Recipients		0.0	1	1	1	62.5
(N = 3)	(n = 1)	s = NA				62.5%

Target Audience Rating = *Satisfactorily in Place*

IV. Participant Responsiveness						
1. Perceptions		0	1	2	0	54.17
2. Skills		0	0	2	1	70.83
3. Knowledge		0	0	2	1	70.83
4. Beliefs (e.g. efficacy)		0	1	2	0	54.17
(N = 3)	Σn	0	2	8	2	62.5%
(n = 4)	s	0.0	0.58	0.0	0.58	9.58

Participant Responsiveness Rating = *Satisfactorily in Place*

Table 20 Continued

Planned Intervention Overall Rating = *Satisfactorily in Place* Cumulative Mean - 62.36%

Note. *0%-25%* = Not in Place (12.5%); *25%-50%* = Somewhat in Place (37.5%); *50%-75%* = Satisfactorily in Place (62.5%); *75%-100%* = In Place (87.5%).

interviewed personnel. In reviewing each of the four main components of the evaluation of the planned intervention, it can be derived from respondent conclusions that research question one (planned implementation) may be deemed as satisfactorily in place presently with regard to implementation.

Planned Implementation Support (Checklist)

The five main sections for corroboration of the planned implementation support included review of the pre-planning, quality of materials, technical support model, quality of technical support, and implementer readiness. The same quantitative value ranges and assigned implementation appraisal statements used to assess stakeholder perceptions on the planned intervention were used for the *Planned Implementation Support Checklist*. Individual results for each area of the planned implementation support may be viewed in a comprehensive table in Table 21, including the summary of the averages for each area of the checklist protocol.

Divisions of the pre-planning heading entailed review of the capacity, awareness, commitment/engagement, incentive for change, and the history of prior program implementation. A mean of 65.83% was calculated from participant responses indicating an appraisal of satisfactorily in place. In reviewing the quality of materials, the design and format of program materials were analyzed. A mean rating of 83.33% was calculated, indicating an in place implementation ranking. The technical support model components assessed included the structure, content and timing of the training and supervision, and implementation monitoring

Table 21

Planned Implementation Support Checklist – Results

I. Pre-Planning		Not In Place	Somewhat In Place	Satisfactorily In Place	In Place	Results $\bar{x}$
6. Capacity		0	0	1	2	79.17
7. Awareness		0	1	0	2	70.83
8. Commitment/ Engagement		0	1	1	1	62.5
9. Incentive for Change		0	1	1	1	62.5
10. History of Prior Program Implementation		0	0	2	1	70.83
(N = 3)	Σn	0	3	5	7	69.17%
(n = 5)	s	0.0	0.55	0.71	0.55	6.89
Pre-Planning Rating = *Satisfactorily in Place*						
II. Quality of Materials						
4. Design of Program Materials		0	0	0	3	87.5
5. Format of Program Materials		0	0	1	2	79.17
(N = 3)	Σn	0	0	1	5	83.34%
(n = 2)	s	0.0	0.0	0.71	0.71	5.75
Quality of Materials Rating = *In Place*						
III. Technical Support Model						
1. Structure of Training and Supervision		0	0	2	1	70.83
2. Content of Training and Supervision		0	0	1	2	79.17
3. Timing of Training and Supervision		0	0	1	2	79.17
4. Implementation Monitoring System		1	2	0	0	29.17
(N = 3)	Σn	1	2	4	5	64.59%
(n = 4)	s	0.50	1.00	0.82	0.96	23.92
Technical Support Model Rating = *Satisfactorily in Place*						
IV. Quality of Technical Support						
1. Quality of Delivery		0	0	3	0	62.5
2. Quality of the Working Relationship		0	0	1	2	79.17

Table 21 Continued

3. Trainer Characteristics		0	1	1	1	62.5
(N = 3)	Σ*n*	0	1	5	3	68.06%
(*n* = 3)	*s*	0.0	0.58	1.15	1.4	9.59
Quality of Technical Support Rating = *Satisfactorily in Place*						
V. Implementer Readiness						
1. Perceptions		0	0	1	2	79.17
2. Skills		0	1	0	2	70.83
3. Knowledge		0	1	0	2	70.83
4. Beliefs *(e.g. efficacy)*		0	0	1	2	79.17
(N = 3)	Σ*n*	0	2	2	8	75.00%
(*n* = 4)	*s*	0.0	0.57	0.57	0.0	4.82
Implementer Readiness Rating = *In Place*						
Planned Implementation Support Overall Rating = *Satisfactorily in Place*						
Cumulative Mean – 72.03%						

Note. *0%-25%* = Not in Place (12.5%); *25%-50%* = Somewhat in Place (37.5%); *50%-75%* = Satisfactorily in Place (62.5%); *75%-100%* = In Place (87.5%).

system. Another satisfactorily in place deliberation from interviewed personnel emerged (mean = 64.58%). Quality of technical support, the fourth subheading for evaluation of the planned implementation support involved appraisal of quality of delivery and the working relationship and the trainer's characteristics. Interviewed personnel results returned a satisfactorily in place rating of 68.06%. Perceptions, skills, knowledge, and beliefs comprised the final heading of implementer readiness in evaluating the planned intervention. The average recorded from participants was 75%, indicating satisfactorily in place. In reviewing each of the five main components of the evaluation of the planned implementation support, it can be derived from respondent averages from each of the main sections that research question two (planned implementation support) may be reasoned as satisfactorily in place.

Observation Program Implementation Checkpoints

The PBS behavioral intervention specialist from the West Central Ohio Special Education Regional Resource Center conducted four informal observations on 09/26/03, 11/25/03, 01/30/04, and 04/20/04. Data obtained from these observations were shared and are disclosed in this section. The *Components Necessary for Program Implementation* observation checkpoint protocol may be viewed in Appendix H. Having the observations performed by the project trainer from the WCOSERRC may be deemed as a limitation to one small measurement of the study since she may be regarded as a biased observer with a stake in the outcomes and processes reported.

Preconditions for program operation pertained to human resources (i.e., number, type, and qualifications for participating staff). All participating staff members were teachers, ranging in experience from 1 year to 30+ years in the field and classified personnel that included custodial, transportation, secretarial, and parent volunteers. Informal resources assessed pertained to district policies and procedures. Criteria for selecting program clients and the evaluation plan was assessed and all district personnel and volunteers were provided training during the 2003-04 school year for the behavioral support program. The district superintendent provided stipends from grant money obtained and offered each participant college credit or Continuing Education Units (CEUs).

Technological resources reviewed included program materials and equipment (e.g., PBS/COMP program implementation manual). Overheads were used and informative handouts were distributed at each training session with breakfast provided. Financial resources assessed included the developmental and operational budget. The district received a $22,000.00 budget for program implementation from the Ohio Department of Education (PBS grant). Physical

resources (e.g., facilities, room, buildings, sites) for training sessions were held in the district's main cafeteria.

The nature of methods and activities adhered to the outline of training activities listed in chapter 3 of this manuscript as documented by assessment dates. On 09/26/03, program participants were observed listening and discussing lectures heard on room arrangement and teaching rules and procedures. On 11/25/03, stakeholders were witnessed listening to a training session on behavior management, reviewing information shared on 10/22/03 and 11/19/03, and performing group activities. Similar lectures and activities were observed on 04/20/04 with peer discussions on classroom format.

The next section on the program implementation checklist (roles, responsibilities, and relationships of staff members) charged staff members with touring and evaluating individual classrooms and moving things around for optimal visibility, accessibility, and distractibility (09/26/03). In addition, team members had to construct classroom rules and procedures and then state them in a positive manner to publish and post in their classrooms. On 11/25/03 participants were observed in the process of developing and implementing effective systems for managing student work and improving student accountability. The observation performed on 01/30/04 noted teachers planning and using specific consequences to encourage appropriate student behavior (e.g., planning and using specific intervention strategies to keep a positive lesson focus). Teachers were observed on 04/20/04 attempting to use whole group, small group, pairs, individual, and station formats in their classrooms, which was presented in a prior training session.

The last item of the observation checklist pertained to the sequence and timing of activities. The 09/26/03 observation noted educators demonstrating instruction and modeling on

suggested procedures provided during the training sessions of August 18, 21, and September 24. In completing this line item of the checklist on 11/25/03, it was noted that workshops were held on October 22 and November 9 where program participants were provided instruction on student/teacher accountability.

A workshop was held on January 21 where team members were given instruction on behavior management. The 01/30/04 observation indicated that a list was made of what a classroom teacher is typically responsible for with regard to classroom management. The final observation on 04/20/04 noted that workshops were held on February 26 and March 31 where district personnel were instructed on how to implement each format of the guidelines afforded from the classroom behavior management training sessions.

PBS Implementation and Planning Self-Assessment (Blueprint)

The building leadership team charged with the administrative and coaching aspect of the school-wide behavioral support program that completed the PBS Leadership Team Self-Assessment and Planning Tool included the district superintendent, school guidance counselor, and the SERRC project coordinator. The school psychologist retired, excusing the newly hired psychologist from attendance since she was not present during the 2003-04 year of program implementation. Responses averages to questions 1-19 of the PBS Leadership Team Self-Assessment and Planning Tool are listed in Table 22 with accompanying descriptions of each feature, while the actual questions for each section of the protocol may be viewed in Appendix I. An implementation status of "In Place" was inquired upon for each question of the survey tool, yielding the following overall response averages: Yes (38.6%), Partially (38.6%), and No (22.8%). The following section describes the findings derived from the nine subheadings (i.e., Leadership Team, Coordination, Funding, Visibility, Political Support, Training Capacity,

Table 22

PBS Leadership Team Self-Assessment and Planning Tool - Results

Feature/Description		In Place Status Yes	Partial	No
I. Leadership Team *(Questions 1-5)*				
Components under this heading include: representative, defined range of influence, self-assessment, prevention action plan, and regular meeting schedule and process.		3	0	0
		3	0	0
		2	1	0
		0	1	2
		0	2	1
	$\bar{x}$	53%	27%	20%
II. Coordination *(Question 6)*				
Items under this subheading of the action planning of the leadership team addressed person(s) identified to coordinate activities and the identification of a project leader for coordination and management.		2	1	0
	$\bar{x}$	67%	33%	0%
III. Funding *(Question 7)*				
To adequately implement a school-wide behavioral support program, PBS authorities advise that districts secure 3-year funding support.		2	1	0
	$\bar{x}$	67%	33%	0%
IV. Visibility *(Question 8)*				
The heading component of visibility relates to the program's dissemination system and strategies.		1	2	0
	$\bar{x}$	33%	67%	0%
V. Political Support *(Questions 9-12)*				
This heading basically entailed four questions to ascertain program political support.		2	1	0
		0	2	1
		1	0	2
		3	0	0
	$\bar{x}$	50%	25%	25%
VI. Training Capacity *(Question 13)*				
Training capacity refers to the trainers for team training.		1	2	0
	$\bar{x}$	33%	67%	0%
VII. Coaching Capacity *(Questions 14-15)*				
A coaching network where coaches meet with the established team defines the coaching capacity heading of the Blueprint protocol.		0	3	0
		0	2	1
	$\bar{x}$	0%	83%	17%
VII. Demonstrations *(Question 16)*				
Under demonstrations, a representative number of implementation examples are provided to program participants.		2	1	0

Table 22 Continued

	$\bar{X}$	67%	33%	0%
VII. Evaluation *(Questions 17-19)*				
The evaluation process includes the need for a school-based		0	2	1
information system and dissemination, celebration, and		0	1	2
acknowledgement activities.		0	0	3
	$\bar{X}$	0%	33%	67%
			n	$\bar{X}$
"In Place" Implementation Status Totals/Averages:		Yes	22	38.6%
		Partially	22	38.6%
		No	13	22.8%
(N = 3)(*n* = 19)		*s*	5.2	9.3

Coaching Capacity, Demonstrations, Evaluation) of the PBS Blueprint.

Responses with regard to the action planning from convened leadership team members centered on a need for identification of main team members, a need for more formal planning, and that selected teachers were attending Leadership for Results training sessions in conjunction with the district PBS training. With regard to coordination and management, the consensus from responses assumed that the superintendent was coordinating the PBS endeavor. Interviewed participants acknowledged that their district secured a PBS grant for school years 2003-04, 2004-05, 2005-06 and Board funding for 2006-07. Grant money had been used thus far for PBS/COMP staff training, to finance a social worker to work with at-risk students (e.g., special emotional needs), and to purchase tangible program materials. Participants reported that a newsletter for the school and community is needed for visibility as well as periodic memos or emails in order to remain informed of program activities and outcomes. Discussions at staff meetings have occurred and personnel were informed to refer "needing" students to the school guidance counselor if they have someone who needed additional support or counseling.

Inquiries of political support for the program indicated that student social behavior was one of the top five goals of the district. It was unclear to respondents whether the annual leadership team reported to district stakeholders on the school-wide behavior support program's progress or if a formal PBS policy statement had been created. In addition, the concept that behavior is an unwritten and shared goal of district personnel emerged as a common theme and program participants believed that there is a need to generate a formal PBS policy statement. All interviewed team members acknowledged that administrative participation and support was evident. In reference to training capacity, the SERRC coordinator in conjunction with the district superintendent lead implementation of the PBS program during the 2003-04 school year. However, interviewed participants believed that they were not meeting with each other enough and that they did not have a coaching network formally established.

All staff members were receiving PBS/COMP training in and selected staff will be trained in *Leadership for Results* by the end of the 2004-05 school year. When interviewing participants with regard to coaching capacity, respondents indicated that they were not aware of a coach on staff and asserted that having such a trained staff member would help with the implementation and the long-term success of the program. Interviewed personnel stated that they had not witnessed any formal demonstrations or representation of implementation examples to date. Participants shared that they were not aware of a formal evaluation process in place. However, an informal evaluation and periodic communication was reported to have occurred, in addition to an end-of-program assessment.

Post-Delivery Phase

The third phase of the program implementation addressed the summative evaluations of the school-wide behavioral support program. Barriers to the implementation of the program were

evaluated and addressed pre-planning, the implementation environment, and implementer factors. Individual semi-structured interviews and a group focus discussion took place during this final phase with a representative group of randomly selected participants. The *Systems-wide Evaluation Tool* (SET-SW), an assessment protocol designed to appraise and calculate the essential attributes of school-wide behavior support, was administered as a culminating quantitative analysis of the program's implementation. The PBS consultant from the West Central Ohio SERRC collected in-service evaluation data from participants after each training session conducted throughout the first year of program implementation. Post session evaluation forms were anonymous and were collected, sealed, and submitted to the WCOSERRC Director as a matter of protocol for evaluation of professional development, with a courtesy copy forwarded to the investigating researcher to incorporate into evaluation findings.

Response data illustrated in Table 23 was obtained from the program leadership team during the Post-Delivery phase and employed the same quantitative value allocations utilized in phases one and two. Questions 1-7 for phase three yielded a 48.21% mean response equating to post-delivery phase from the *Strategies to Facilitate Effective Program Delivery* protocol may be viewed in Appendix E.

Barriers to Implementation Checklist

Barriers to implementation were divided into five sections (i.e., pre-planning, implementation support system, implementation environment, implementer factors, program the rating of "Fair' in assessment of the program implementation of this phase. Questions for the characteristics) and included subcategories for implementation evaluation for each of these main headings. An overall mean of 71.36% was calculated, indicating the rating of "good" using the same quantitative value allocations utilized in previously reviewed protocols (i.e., Poor = 0-25%,

Table 23

Post-Delivery Phase – Response Data

	Survey Questions						
Rating	*n* 1	*n* 2	*n* 3	*n* 4	*n* 5	*n* 6	*n* 7
Poor	0	0	0	0	0	1 12.5	0
Fair	2 75	2 75	1 37.5	1 37.5	2 75	2 75	2 75
Good	1 62.5	1 62.5	2 125	1 62.5	1 62.5	0	1 62.5
Excellent	0	0	0	1 87.5	0	0	0
Σn	137.5	137.5	162.5	187.5	137.5	87.5	137.5
$\bar{x}$	45.83	45.83	54.17	62.5	45.83	29.17	45.83
Rating	Fair	Fair	Good	Good	Fair	Fair	Fair
s^2	208.79	208.79	207.79	625	208.79	208.04	208.79
s	14.45	14.45	14.41	25	14.45	14.42	14.45

$\bar{x}$ Response Ratings = 47.02 $\bar{x}$ Rating = Fair (N = 3)

Note: Quantitative value allocations: 0-25% = Poor (12.5%); 26-50% = Fair (37.5%); 51-75% = Good (62.5%); and 76-100% = Excellent (87.5%).

= 0-25%, Fair = 26-50%, Good = 51-75%, Excellent = 76-100%). Table 24 lists a summary of the response means and denoted ratings for each section of the *Barriers to Implementation* survey, including individual subheadings and response means under each main heading of the instrument.

The first barrier categorization, pre-planning, achieved a rating of good (58.33%), indicating that lack of buy-in, awareness, history or incentive for change was not obstructing progress. A response mean of 69.16% indicated that subcategory categories under implementation support barriers (i.e., pre-planning, training, communication, etc.) were not obstacles at the present time to program implementation. An average total of 64.88% reflected that participants believed that the third barrier division heading, environment (i.e., principal

Table 24

Barriers to Implementation Results

Barrier Category		Poor	Fair	Good	Excellent	Mean
I. Pre-Planning		P	F	G	E	
Lack of Awareness		0	0	2	1	70.83
Lack of Buy-In		0	1	2	0	54.17
Absence of Incentive to Change		0	2	1	0	45.83
History of Implementation		0	0	3	0	62.5
(N = 3)	Σ*n*	0	3	8	1	58.33%
(*n* = 4)	*s*	0.0	0.96	0.82	0.53	10.78
Pre-Planning Rating = *Good*						
II. Implementation Support System		P	F	G	E	
Insufficient Pre-Planning		0	0	2	1	70.83
Inadequate Provision of Training *(i.e., Implementers are unprepared)*		0	0	1	2	79.17
Insufficient Supervision for Implementers		0	1	1	1	62.5
Poor Communication Between Outside Training System and Implementers		0	0	1	2	79.17
No System for Addressing Ongoing Needs of Implementers or Problems Encountered		0	1	2	0	54.17
(N = 3)	Σ*n*	0	2	7	6	69.17%
(*n* = 5)	*s*	0.0	0.55	0.55	0.84	10.85
Implementation Support System Rating = *Good*						
III. Implementation Environment		P	F	G	E	
Principal Leadership is Inadequate		0	1	1	1	62.5
Program is Not Integrated with Other Aspects of Schooling or Curriculum		0	2	0	1	54.17
Implementers Are Isolated or Unsupported		0	0	3	0	62.5
Program Does Not Receive Adequate Attention Because of Competition with Another Curriculum		0	0	2	1	70.83
Insufficient Resources Allocated *(e.g., Classroom Time, Physical Space, and Budget)*		0	0	2	1	70.83
Overall School Climate Is Poor *(Low Collegiality)*		0	0	2	1	70.83
Classroom Climate Impedes Implementation		0	0	3	0	62.5

Table 24 Continued

(N = 3)	Σ*n*	0	3	13	5	64.88%
(*n* = 7)	*s*	0.0	0.79	1.06	0.50	6.30
Implementation Environment Rating = *Good*						
IV. Implementer Factors		P	F	G	E	
Implementers Do Not Feel Prepared To Deliver the Implementation		0	0	2	1	70.83
Implementers Are Overstressed/Undersupported		0	0	2	1	70.83
Implementer's Educational Philosophy/Teaching Style is Not Consistent with the Intervention		0	0	3	0	62.5
(N = 3)	Σ*n*	0	0	7	2	68.05%
(*n* = 3)	*s*	0.0	0.0	0.6	0.57	4.88
Implementer Factors Rating = *Good*						
V. Program Characteristics		P	F	G	E	
Poor Quality of Materials		0	0	3	0	62.5
Inappropriate for Audience		0	0	2	1	70.83
Too Narrow to Address Problem		0	0	3	0	62.5
(N = 3)	Σ*n*	0	0	8	1	65.28%
(*n* = 3)	*s*	0.0	0.00	0.56	0.58	4.74
Program Characteristics Rating = *Good*						
Barriers to Implementation Overall Rating = *Good*						Cumulative Mean – 71.36%

Note. *0%-25%* = Poor (12.5%); *25%-50%* = Fair (37.5%); *50%-75%* = Good (62.5%); *75%-100%* = Excellent (87.5%).

leadership, program integration, resources, etc.) was "good" with regard to implementation. The barrier category of implementer factors (i.e., preparedness, support, etc.) generated a 68.05% average, implying that these factors are "good" for implementation, rather than a barrier. The final barrier section, program characteristics (i.e., quality of materials, audience, etc.), again yielded a rating of "good" from participants (65.28%). In reviewing the five barrier divisions to implementation, the total respondent mean of 71.36% averaged from each of the main headings indicates a quantitative rating of "good." Thus, barriers to the implementation of the PBS

program have presently be regarded as "good" by participants and not detrimental to the program being put into operation.

Individual Semi-Structured Interview Questions

The individual semi-structured interview questions utilized in this protocol were derived from the *Effective Behavior Support Team Implementation Checklist* (Sugai, Horner, & Lewis-Palmer, 2002) from the ECS division of the University of Oregon. Questions were categorized into seven sections (i.e., Commitment, Maintain team, Self-assessment, School-wide expectations, Information system, Capacity building, Activity monitoring) and yielded the quantitative data that are listed at the end of this section in Table 25. The status scale used to assess interviewed personnel ratings for responses to questions 1-23 entailed the following: Not started, Moderately in progress, In Progress, and Achieved. The four response options were again divided into quarterly percentile ranges to equate and be able to calculate quantitative data (i.e., 0-25% = NS, 26-50% = M, 51-75% = IP, 76-100% = A). Action Plan for Completion of Start-Up Activities, the second section of the interview protocol, produced qualitative findings from questions 24-30 that are conveyed in the ensuing section. Appendix R offers a graph of the individual implementation perception response averages of interviewed personnel for the interview questions, while Appendix S charts the cumulative response average for each individual interview question. A sample of the *Individual Semi-Structured Interview* protocol may be viewed in Appendix K.

Part 1 – Individual Interview

Establish commitment. The first section heading of the individual interview protocol had two questions on the topic of establishing commitment (i.e., administrator support and active involvement, faculty and staff support). Participant themes centered on positive administrative

support, that staff commitment is apparent, and more can be done then that which has been presently performed.

Establish and maintain team. The second section of the interview had three questions on establishing and maintaining a team (i.e., established team, regular meetings, integration of teams audit). Mixed responses were elicited with common responses indicating that a representative team was composed, though the use or access to the team was inconsistent and unclear. Overall, interviewed participants believed that they were beginning to see how the school-wide behavior support program related to other programs they presently had in place or had used in the past.

Self-assessment. The third section of the interview contained three questions regarding self-assessment (i.e., EBS survey, discipline data, strengths/action plan). All participants acknowledged completing the inaugural survey at the beginning of the school year. Varied responses were submitted with regard to collection and summarization of school discipline data. Several respondents concurred that most of the attention to this topic is apparent for grades 7-12. The majority of responses agreed that strengths and weaknesses had been identified, though they were not aware of any formal action plan established to address current behavioral issues.

Establish school-wide expectations. The fourth section of the interview contained six questions (i.e., 3-5 expectations, teaching matrix, teaching plans, expectations taught, reward system, consequence procedures). It was apparent from the responses reviewed that school-wide expectations had not been defined. Some educators mentioned that they have convened to attempt to create a similar behavior plan, witnessing common, yet inconsistent elements of a school-wide plan in existence. It was evident that the primary level had their own class rules per grade level, while the junior and senior high somewhat followed the school policies and

procedures rulebook. Confusion occurred when inquiring if a school-wide teaching matrix had been developed, eliciting "not started" or "moderately in place" responses due to an undetermined status. An overwhelming majority stated that there were no formal teaching plans developed for school-wide expectations. Some respondents mentioned that the school guidance counselor came in weekly to provide a behavioral-related lesson for grades K-6. Participant responses regarding the direct teaching of expectations of appropriate behavior shared a common theme that it was being accomplished in the district, though inconsistent from teacher to teacher. A similar premise emerged when ascertaining if a system was in place to acknowledge and reward school-wide expectations. Students were acknowledged and rewarded, though not formally or school-wide for behavior in that many teachers had their own systems in their individual classrooms. Interviewed personnel agreed that consequences and procedures for misbehavior were somewhat defined, though many shared that consequences often were inconsistent for students committing similar behavioral infractions.

Establish information system. Ascertaining if discipline data was gathered, summarized, and reported was the only question for the fifth section of the interview. Many believed that this was in progress, though a formal procedure had not been achieved. High school personnel interviewed noted that it was officially recorded, but not shared among all staff. No established system for tracking and sharing behavior data was understood to be in place at the elementary level.

Build capacity for function-based support. The next section of the protocol had two questions (i.e., personnel with behavioral expertise, systems of support) that generated positive results. Almost all interviewees noted the school guidance counselor and psychologist as personnel on staff with expertise in behavioral modification, with a few responses noting the

school social worker. Queries were provoked when identifying if a plan had been developed to identify and establish systems for teacher support, functional assessment and support plan development, and implementation. All alluded that they knew whom to turn to with student behavior concerns, though some referred to a handout received on intervention assistance referral that was not adequately explained to them. Several stated that they were not sure if plans were developed for referred students and added that it would be beneficial if this information was reported back to them.

On-going activity monitoring. Six questions comprised the last section of part one of the interview (i.e., monthly meetings and status reports, action plan activities and accuracy, effectiveness and data analyzed). Some stakeholders recognized that the behavior team met regularly, while a few were not aware of its existence. Comfortingly, all interviewed confirmed that they have received status reports and updates at monthly faculty meetings. When ascertaining if activities for PBS action plans had been implemented a common theme surfaced that they were not really aware of such a plan, but were confident that one was created due to the present efforts of the school-wide PBS implementation. Questions regarding the accuracy and effectiveness of PBS action plan implementation yielded similar responses from the majority in that there was an awareness of a plan and that someone must be analyzing it; for it would be a waste of time to collect it and then do nothing with it.

Part 2 – Action Plan for Completion of Start-up Activities

The last segment of the interview contained seven questions inquiring upon the establishment of the following topics: Commitment, Team, Self-assessment, School-wide expectations, Information system, Function-based support, and Next steps. These remaining questions were not direct/closed questions; rather, they were designed more open-ended to attain

qualitative in-depth responses. Each question of this section provided a topic heading with subheadings to prompt responses from participants. Conclusions obtained from each question are listed in the following section with summative findings of emergent response themes.

Establish commitment. The first question focused on establishing commitment to the program (i.e., administrator, top 3 goal, 80% of faculty, three-year timeline). Survey responses indicated that administrator commitment to the program was evident. Many were not sure if the PBS program was one of the district's top three goals, though personally asserted that it should be. Collectively, the majority of respondents also indicated that it would be fair to state that at least 80% or more of the faculty were "on board" with the school-wide program initiative. Only a few respondents were cognizant of an established three-year timeline for program implementation. Again the premise that the district-wide program seems to be focused primarily at the 7-12 grade levels and that numerous personnel are somewhat "in the dark" with regard to the overall scheme.

Establish Team. The next question of this section concentrated on the establishment of a team (i.e., representative, administrator, operating procedures, audit). Subheading prompts elicited mixed responses when determining the composition of the established district and/or building-level behavioral teams. Common personnel speculated to be a part of these teams included the superintendent, building administrators, school counselor, and psychologist. As previously noted, it was evidenced from responses that administrators were members of fairly representative teams, though operating procedures and audits were deemed not to be formally established for lack of information dissemination.

Self-Assessment. The EBS survey, discipline data, strength identification, and the development and presentation of an action plan were the topics of inquiry for the question

regarding self-assessment. In response to these topics of self-appraisal, participants affirmed that they all had taken the EBS survey and that narrow findings from the instrument had been shared. It appeared from responses provided that an action plan noting district focus or goal was developed from the EBS survey, though many stakeholders have not seen it. Several personnel mentioned that much information had been circulated, but not fully explained, and with not much further involvement. Another commonality noted from responses was that discipline data was collected somewhat formally, but not really shared and that strengths were identified with average follow-up and information sharing.

School-wide Expectations. The next question of inquiry probed to ascertain if 3-5 school-wide behavioral expectations had been established, if a curriculum matrix that involved plans and direct teaching of expectations had occurred, and if consequences for problem behavior were clearly defined. Only a few interviewed personnel could recite the "established" 3-5 school-wide rules, while others mentioned that the consensus task for identifying 3-5 expectations was underway and could be identified, but not school-wide yet. Several affirmed that a curriculum matrix implementation could be noted in their curriculum and that their teaching plans included components of their adopted social skills curriculum, implying that teachers had plans and taught expectations to students. It was indicated that there was a behavioral curriculum for grades 1-6, but not a formalized one for grades 7-12. An over-riding theme shared was that expectations were taught, but with inconsistency and not by everyone. Much discrepancy was received in discussing behavioral consequences in that it was too vague and individualized and was being performed more reactively than proactively. A clause recorded in the district policy handbook indicates that consequences for student misbehavior are open to administrator discretion.

Establish Information System. A system for gathering useful information, a process for summarizing information, and a process for using information for decision-making were the subheading prompts for the next open-ended interview question. Interview responses were common with regard to the establishment of an information system in that no formal system was apparent to them. However, most concurred that a limited system existed for gathering useful information (e.g., secretary gathers behavioral/discipline information for administration), but that it was not genuine district-wide. Many agreed that behavioral data was collected, though only a few respondents were aware of a process for summarizing the information or how it was used for decision-making. Those that were knowledgeable added that the procedures seemed to only be used for a select few, rather than a more universal and representative process. An additional common response evidenced was that information used for decision-making should be standard practice for all students and situations and not only as the need or as severity occurred.

Build capacity for function-based support. Personnel with behavioral expertise and time and procedures for identification, assessment, and support implementation were the subheadings of the next interview question with regard to function-based support capacity building. Many personnel concluded that the school guidance counselor and psychologist could be staff members considered as having behavioral expertise and some also knew where to go for additional assistance (e.g., social worker, outside agencies). Only a few respondents were not aware of the district/building procedures for identification, assessment, and support implementation. Time appeared to be the sour point in their efforts to build capacity for function-based support. Many asserted that time is not really set aside, except for the one period a day of planning time they have. Two respondents indicated that they received an additional planning period during the day

as building program leaders to in-service personnel on procedures for identification, assessment, and support implementation due to grant funding received.

Next steps – going to scale. The final question of the interview was open-ended with no prompts and questioned individuals' perceptions of the next steps needed for their district-wide program to go to scale. The major theme emanating from all interviewed was the need for an increase in communication. A couple of elementary/primary interviewees believed that the program being implemented was somewhat of a "7-12 thing" and they desired for program information to be explained to them sooner and in greater detail. Though virtually all interviewed agreed that information had been distributed for awareness, it was also shared that program correspondence lacked consistency and full disclosure. Adequate direction and dissemination of information to staff was claimed lacking and several staff members shared that their input to the program was needed.

An assertion shared by many was that they wanted more information on the program and a realization (i.e., data, plan) of what direction they were heading or should be going. It was surprisingly apparent that full disclosure to the staff identifying who and what the team is, how processes are handled (e.g., referral procedures), publishing of progress reports (e.g., communication) to the staff (e.g., progress data monitoring) for school-wide awareness was still needed. A desire to establish and carryout everything that the PBS program advocates, including systems with more involvement from all staff (e.g., classified personnel) was communicated through the interview process. One suggestion from a faculty member, which appears advisable after interviewing personnel, was that the majority of the staff could benefit from a "refresher" of what PBS is and how it has been planned to be carried out in the district. Similar responses

indicated a desire to visit schools presently using PBS and then possibly align and relate this information to their district's program.

Table 25

Individual Semi-Structured Interview Results

Question #	Content	Achieved *n* [87.5*n*]	In Progress *n* [62.5*n*]	Moderately In Place *n* [37.5*n*]	Not In Place *n* [12.5*n*]	Implementation Average [Σx/N] = x̄	Rating Status
1	Administrator's support involvement	7 (612.5)	3 (187.5)	*0*	*0*	[800/10] = 80%	Achieved
2	Faculty/Staff support	2 (175)	5 (312.5)	3 (112.5)	*0*	[600/10] = 60%	In Progress
3	Team established (representative)	1 (87.5)	6 (375)	1 (37.5)	2 (25)	[525/10] = 52.5%	In Progress
4	Regular meetings/operating procedures	2 (175)	2 (125)	3 (112.5)	3 (37.5)	[450/10] = 45%	Moderately in Place
5	Audit/integration/other teams/initiatives	*0*	5 (312.5)	3 (112.5)	2 (25)	[450/10] = 45%	Moderately in Place
6	EBS self-assessment completion	10 (875)	*0*	*0*	*0*	[875/10] = 87.5%	Achieved
7	Summarize school discipline data	2 (175)	3 (187.5)	3 (112.5)	2 (25)	[500/10] = 50%	Moderately in Place
8	Strengths/areas of focus/action plan	3 (262.5)	3 (187.5)	2 (75)	2 (25)	[550/10] = 55%	In Progress
9	3-5 behavior expectations defined	*0*	3 (187.5)	7 (262.5)	*0*	[450/10] = 45%	Moderately in Place
10	School-wide teaching matrix	*0*	2 (125)	3 (112.5)	5 (62.5)	[300/10] = 30%	Moderately in Place
11	Teaching plans for expectations	*0*	2 (125)	1 (37.5)	7 (87.5)	[250/10] = 25%	Not In Place
12	Expectations taught directly/formally	*0*	2 (125)	5 (187.5)	3 (37.5)	[350/10] = 35%	Moderately in Place
13	System to acknowledge/reward	*0*	2 (125)	5 (187.5)	3 (37.5)	[350/10] = 35%	Moderately

Table 25 Continued

14	Defined/consistent consequences	2 (175)	3 (187.5)	3 (112.5)	2 (25)	[500/10] = 50%	in Place Moderately in Place
15	Data gathered/summarized/reported	*0*	4 (250)	2 (75)	4 (50)	[375/10] = 37.5%	Moderately in Place
16	Behavioral personnel identified	5 (437.5)	5 (312.5)	*0*	*0*	[750/10] = 75%	Achieved
17	Establish support systems for FBA/BIP	2 (175)	1 (62.5)	5 (187.5)	2 (25)	[450/10] = 45%	Moderately in Place
18	PBS team has met at least monthly	*0*	3 (187.5)	5 (187.5)	2 (25)	[400/10] = 40%	Moderately in Place
19	Monthly status report to faculty	*0*	*0*	3 (112.5)	7 (87.5)	[200/10] = 20%	Not In Place
20	Implement PBS action plan activities	*0*	2 (125)	3 (112.5)	5 (62.5)	[300/10] = 30%	Moderately in Place
21	PBS action plan accuracy assessed	*0*	*0*	5 (187.5)	5 (62.5)	[250/10] = 25%	Not In Place
22	PBS plan implementation effectiveness	*0*	*0*	5 (187.5)	5 (62.5)	[250/10] = 25%	Not In Place
23	PBS data analyzed	*0*	3 (187.5)	5 (187.5)	2 (25)	[400/10] = 40%	Moderately in Place
		$\bar{x}$ *{15.7%}	*{25.7%}	*{31.3%}	*{27.3%}		
	Σn	36	59	72	63	$\Sigma\bar{x}$ 1032.5	Moderately
	$\bar{x}$	1.57	2.57	3.13	2.74	$\bar{x}$ 44.89%	in Place
	s^2	6.7	2.6	3.66	4.57		
	s	2.59	1.61	1.91	2.14		

Note: 76%-100% = Achieved (87.5%); 51%-75% = In Progress (62.5%); 26%-50% = Moderately in Place (37.5%); and 0%-25% = Not in Place (12.5%). *Participant response mean per rating category.

Focus Group Discussion Questions

A focus group discussion was held to explore and expound upon obtained data findings in inquiry of the research questions. Triangulation of the data accumulated was supported through in-depth group discussion with participants in addition to the gathering of truthful process information with the endeavor of ascertaining if the program had been effectively implemented as planned. Appendix L lists the eight questions presented to the group, which were derived from interview questions, record review items, theory checklists, and culminated with the study's research questions. Each of the eight questions is recapitulated below with shared themes accounted.

Question one. The first question of the focus group discussion was to determine if the building leadership team was providing the resources, vision, and systems needed for district-wide implementation of the school-wide behavioral support program. After sharing data from the *PBS Leadership Team Self-Assessment and Planning Tool* the first response from the group was "Who's all on the building leadership team?" which set a slightly dismal tone for ascertaining the composition of the building leadership team. Others joined in by mentioning the school counselor, psychologist, principal…almost identifying the all members, though it was evident that the majority of the composed group was unsure of the exact composition of their respective building leadership team. The primary topic of the first question pertained to building leadership team makeup and aptitude, yet the group dialogue readily switched to reflections of the COMP component of PBS and training. The common theme for the turn in discussion was that participants were neither pleased with the trainer nor fully understood the fit of the COMP piece. After re-directing the group discussion back to the original question, it was surmised by consensus that resources (e.g., materials, training) had been adequately furnished, though a clear-

cut vision (i.e., in print) and a comprehensive and universally executed system was still needed. In noting that the COMP component of the program appeared to be the focal point of recollection by the faculty, it may be a warranted line of reasoning that they have other needs that have not been addressed.

Question two. The next issue for discussion was if both schools were implementing the school-wide PBS program effectively, in which data from *The PBS Planning and Implementation Self-Assessment Checklist* and the *School-wide Evaluation Tool (SET-SW)* was divulged. School-wide, as agreed upon by all present, was confirmed as the paramount area of concern that still needed to be addressed. It was clearly established through discussion that classroom rules and behavior management was taking place in each classroom. However, it became evident that what one teacher was doing in one class could be very different from that in another. This synopsis was supported by a communal theme that what was occurring in the elementary classrooms was totally different from the procedures transpiring at the junior/senior high level. To be precise, it was apparent that PBS-like activities were occurring in piecemeal fashion as instructed in individual classrooms, but it was not executed commonly yet in respective buildings or district-wide.

Question three. In order to begin to ascertain the present efficacy perception of stakeholders with regard to their efforts, the next question solicited from the group was if the implementation thus far of school-wide PBS has positively affected student behavior. *Archival behavioral data review* (e.g., office discipline referral) information was shared in a pre/post model for the present school year with convened personnel. Still persevering with the COMP query, one team member began questioning what else was involved with the "PBS implementation stuff" or if it merely was just COMP. Another discussion member attempted to

encapsulate the state of mind of the first respondent and the others by avowing, "Knowing the whole grand scheme of PBS, what it is, and where we were going with it up front would have been great." After redirecting the group interest back to observed improvements in student behavior due to program implementation, it was shared by consensus that it would be difficult to offer an accurate response due to how long the program has been in place thus far.

Positive examples were then recollected such as interactions now taking place between the school psychologists and referred students, which was further acknowledged to be having an effect on some of the challenging students and was working well. One participant shared that the district had just started a few groups in the schools with outside agency (i.e., mental health) involvement. Others chimed in and claimed that major behavior changes with students may not yet be evident, though by at least meeting with the students and giving them some ideas is helpful. It was derived from the group responses that data to show improvement gains with students is not disseminated adequately (i.e., provided to select staff members). In summary, some improvement was noted with selected students evidencing high needs, though a direct correspondence to this improvement in relation to the program's first year of implementation is beyond the scope of this study.

Question four. The next question of the focus group investigated if the implementation of the school-wide PBS program exhibited a decrease in student misbehavior. After sharing findings accrued thus far from the *School-wide Effective Behavior Support Survey*, the predominant response from the group, understanding that this was only the first year of program implementation, was that no significant changes have been noted. Team member consensus believed that it would have to be a very small percent, if any at this point. It was also revealed that a "handful" of students had been pulled out to work with the counselor and outside agency

involvement (i.e., mental health), in which marked changes were noted. Additional group members agreed in part, but added that changes were not evidenced school-wide. Taken as a whole, it was determined that a small decrease had been noted with selected students, but not commonly throughout the district.

Question five. Building upon the inquiry of question four, group participants were then asked if the implementation of the school-wide program allowed their buildings to develop better support for students with the most extreme needs. Data from the *Individual Student Systems Evaluation Tool* was disclosed, in which convened members concurred that this was occurring for the most part, especially with the most "extreme" kids. Several group members that witnessed select students working with the school psychologist corroborated this. In addition, others chimed in, reporting that a member of the local mental health collaborative regularly comes in and works individually with about 20 students K-12. Though student support was reported to be more prevalent, team members desired to receive follow-up information (e.g., increased communication) on these referred students and their interactions with behavioral specialists. Overall, group members indicated that, indeed, increased support was now more visible, but only for the students with the most presenting needs. Team members decided that increased correspondence would be beneficial and should take place between the team working with these students and the teachers who referred them for additional behavioral support.

Question six. In focusing more on the theory behind the implementation of the behavioral support program, the group was then asked what areas needed further development and training in order to enhance and make the present program more established. The recurring themes of communication, guidance, and dissemination emerged as the predominant subject matter in discussing program development and training needs in adhering more to the tenets of the PBS

program. It was evident from responses shared that more support and effort would have been imparted with regard to the COMP training if they fully understood up front how it was integrated into the bigger picture (i.e., PBS) of long range behavioral programming. Many agreed that it would be beneficial for the district to hold another all-day training (e.g., school-wide PBS overview) that fully disclosed the "3-year" plan with both short and long-term district goals. Additional discussion regarding improvement suggestions for information dissemination, identifying the "fit", and catering to the "why" became abundant within the group.

The discussion then changed direction to Intervention Assistance Teams (IAT) and how loosely organized they perceived they were presently operating. Several members added to this topic, expressing their confusion between the IAT and PBS individual behavioral support teams, evidencing a need for further training on the interdependency of the two. Conclusions were made that the prevailing discipline problems in their district were not due to the general student body, but instead, the afore-mentioned small group of "extreme" students. Team members deduced a need for a deeper understanding of the PBS programming (e.g., options) and its overall fit into the scheme of their present disciplinary procedures as well as a further understanding of the interconnectedness of PBS to existing school programs (e.g., IAT).

Question seven. The next question presented to the group directly addressed the first research question of this research project. Team members were asked if the planned intervention (i.e., essential components of the theory that underlie the school-wide system of PBS) had been implemented proficiently in comparison to the predetermined program goals and objectives. Almost in harmony, several members stated that it would be challenging to fully answer this question due to the lack of clarity on the program's goals and objectives. Additional comments themed around the conjecture that many staff members are still unaware of what the original

plan, objective, or goals were for them and their respective buildings. Reverting to the planned intervention with regard to program materials, it was confirmed that personnel received a manual, various other handouts and ongoing training. Retrospectively, convened participants were in agreement that activities have occurred, though difficulty has been experienced in attributing them to planned goals and objectives since they have not been made adequately transparent to the entire faculty.

Question eight. The last question also unswervingly addressed the second research question by inquiring if the planned implementation system (i.e., staff training, coordinating intervention infrastructure) had been delivered as planned. All present agreed that training had occurred, though several members asserted that the COMP component appeared to overshadow the PBS initiative with regard to the training they received. Participants inquired to the group about the collaborative planning sessions that were undertaken in the spring of 2003 in how COMP was decided upon in the overall school-wide PBS plan. Two members shared that the "outside people" (i.e., SERRC consultant and social worker) came to the meetings and asked questions and offered programmatic options to select from to address presenting needs. The conversation continued indicating that everyone desired that student behavior would improve within their district, but that it wasn't as bad as other districts in their area. This then led to a division in opinion between the elementary and junior/senior high personnel present in that the behavioral concerns evidenced in their district, though limited, were different between the building grade levels. It may be surmised from the responses received that the training provided may have been too generalized and not specific to respective age groups and differing needs.

When redirecting the focus back to the initial question of training and implementation support, one member shared that it (i.e., training and intervention support) was occurring and

appreciated, but that the more global issue was the inconsistencies with consequences and the follow up on student misbehavior. Several others agreed and inquired if others present had received feedback results regarding students referred to the PBS behavioral support teams. A few members shared that the SERRC coordinator and/or the district superintendent had provided feedback and that they would be the primary contacts to speak to in order to receive follow up on individual student cases. Collectively, it was evident that training had occurred and support was available, though the comprehensive PBS systems application seemed to be still unclear and somewhat COMP-driven. In addition, though outside personnel (i.e., SERRC consultant and school social worker) had provided training, the support coordination and communication to all program stakeholders seemed to be limited or accessible to those informed.

System-Wide Evaluation Tool: School-Wide (SET-SW)

The Systems-wide Evaluation Tool (SET-SW) was administered to assess and evaluate the critical features of school-wide effective behavior support program at present, and will be administered each academic school year**.** SET-SW behavioral support results were obtained by the district to: (a) assess features that are in place, (b) determine annual goals, (c) evaluate on-going school-wide behavior support, (d) design and revise procedures, and (e) compare efforts from year to year. Information obtained for this assessment tool was gathered through multiple sources (e.g., review of permanent products, observations, building tours, and staff and student interviews). The district superintendent was secured as a contact person and aided data collection by securing the following products: school building discipline handbooks; district improvement plan goals; annual action plan for meeting school wide behavior support goals; social skills instructional materials; implementation time line; behavioral incident summary reports (e.g.,

office referrals, suspensions, expulsions); the district office discipline referral form; and other behavioral-related information required by the SET-SW.

The SET-SW was designed to provide trend lines of improvement and sustainability over time utilizing aforementioned products that were obtained and reviewed during the fall of 2004. Topical headings for the SET-SW assessment include defining, teaching, and reward systems for behavioral expectations; behavioral violation response system; monitoring and decision-making; program management; and district-level support. The overall SET-SW implementation score of 52.68% was calculated by averaging the individual implementation scores of each of the seven feature areas (mean of means). The results of the SET-SW provided the district with a measure of the proportion of features that were not targeted or started, in the planning phase, and in the implementation/maintenance phases of development toward a systems approach to school wide effective behavior support. Table 26 provides individual values allocated to each SET-SW question and the summary scores in relation to each SET-SW feature.

Expectations defined. In determining if expectations of the school-wide behavioral support program had been defined under the inquiry parameters of the SET-SW, it was found via review (e.g., discipline handbook, through interviews, and other instructional materials) that there were too many school rules that were not positively stated in entirety. While touring the school campus it was observed that rules and expectations were not posted in the halls or meeting areas, rather, only in the classrooms and the respective handbooks of each building.

Behavioral expectations taught. In ascertaining if school behavioral expectations were being taught, the interview results and review of lesson plan books and instructional materials indicated that such teaching would occur through a documented system. The interview process revealed that less than 90% of the staff could state that they had directly taught behavioral

Table 26

SET-SW Features/Results Summary

Feature	*Response Range *(0-2)*
A. Expectations Defined (Questions 1-2)	(N = 2) Section $\bar{x}$ = 25%
n 1 0	*s* = 0.71
B. Behavioral Expectations Taught (Questions 3-7)	(N = 5) Section $\bar{x}$ = 50%
n 1 1 2 0 1	*s* = 0.71
C. On-going System for Rewarding Behavioral Expectations (Questions 8-10)	(N = 3) Section $\bar{x}$ = 50%
n 1 1 1	*s* = 0.00
D. System for Responding to Behavioral Violations (Questions 11-14)	(N = 4) Section $\bar{x}$ = 62.5%
n 2 1 0 2	*s* = 0.96
E. Monitoring and Decision-Making (Questions 15-18)	(N = 4) Section $\bar{x}$ = 50%
n 2 2 0 0	*s* = 1.15
F. Management (Questions 19-26)	(N = 8) Section $\bar{x}$ = 31.25%
n 1 0 0 1 2 1 0 0	*s* = 0.73
G. District-Level Support (Questions 27-28)	(N = 2) Section $\bar{x}$ = 100%
n 2 2	*s* = 0.00
SET-SW Section Summary Scores	
A = 1/4 *(25%)* B = 5/10 *(50%)* C = 3/6 *(50%)* D = 5/8 *(62.5%)*	
E = 4/8 *(50%)* F = 5/16 *(31.25%)* G = 4/4 *(100%)*	
Overall SET-SW Implementation Score [$\Sigma\bar{x}$/N] (368.75/7 = 52.68%)	(N = 7) (*n* = 28)

Note. *Response option scores to select from were 0, 1, and 2. Individual criterion (rubric) for each response option score varied per question and may be referenced in Appendix M.

expectations during the program implementation year. In contrast, 90-100% of interviewed participants indicated that the school-wide program had been taught and reviewed with the district staff. Responses calculated conveyed that less than half of the students and between 51 and 89% of the staff interviewed could state 67% or more of the school rules.

On-going system for rewarding behavioral expectations. Identifying if an on-going system for rewarding behavioral expectations had been established involved the review of instructional materials, lesson plans, and interviews. Personnel acknowledged, but could only offer individual (i.e., non-documented) systems for rewarding student behavior. Less than half of the students indicated that they had received a reward, other than verbal praise, for expected behaviors over the past two months from the date they were interviewed. During this same time period, *51-89%* of staff interviewed indicated that they had delivered a reward, other than verbal praise, to students for expected behavior.

System for responding to behavioral violations. It was noted through review of the discipline handbooks and instructional materials that a documented system for responding to behavioral violations (i.e., dealing with and reporting specific behavioral violations) was in place within the district. However, less than 90% of staff interviewed reported that they agree with administration on what problems are office-managed and what problems are classroom–managed. On a positive note, a documented crisis plan for responding to extreme dangerous situations was found posted in five locations throughout the campus when touring the facility. A unanimous response of staff interviewed agreed with their administration on the procedures for how extreme emergencies are addressed.

Monitoring and decision-making. When analyzing the monitoring and decision-making component of the SET-SW, the discipline referral form reviewed listed the student name, grade, date, time, referring staff member, problem behavior/incident, location, and administrative decision rendered. Through interview of personnel and data obtained from observation, it was concluded that discipline referrals were collected and summarized (i.e., sorted electronically). Though the discipline data is collected and recorded for Electronic Management Information

System (EMIS) purposes, it was shared (i.e., individual interviews) that the information was not formally reported to the general staff for review. Less than half of the personnel interviewed could report that discipline data was used for making decisions in designing, implementing, and revising the school-wide positive behavior support efforts.

Management. Through interview of personnel and review of the district's school improvement plan, improvement of building behavior support systems was listed fourth on a level of importance. Though not listed in the top three, the importance should not be considered as unimportant to the district since maintaining areas of excellence as dictated by the Ohio Report Card are common top priorities for Ohio schools. Less than half of interviewed personnel could identify a formally established school-wide team that addresses behavior support systems in their buildings. At this time, it was apparent that representation of all staff on this team had not been adequately secured. Just fewer than 90% of those interviewed could identify the leader of the team. However, it was conveyed that active administrative support was taking place from those informed of whom the team leader in their building was. Interviews indicated that team meetings occurred less than monthly and progress reports from the team were not regularly reported to district stakeholders. The district annual plan and school calendar reviewed did not indicate an action plan with specific goals at this time.

District-level support. Support from the district central office was evident and conclusively agreed upon as occurring by all interviewed members. The district budget, via grant funding, contained an allocated amount of money for each school to begin building and maintaining school-wide behavioral support. In addition, each administrator interviewed was able to identify the out-of-school liaisons for the district behavioral support program.

Additional SET-SW questions were performed (i.e., discipline system, school rules/motto, discipline team, PBS implementation) with administrators, core team members, and students. In assessing the present school discipline system, it was understood that discipline referral information was collected and summarized, but not fully disseminated. Data were reported to be collected and entered by administrators and administrative assistants (i.e., secretarial employees). Data was reviewed by district administration and shared as needed with personnel as requested and/or staff when deemed necessary. Administrators reported that the majority of behavioral issues should and are catered to in the classroom or specific setting; referring only extreme cases to the office. An established crises intervention plan has been employed when dealing with extreme emergencies in each building.

The next item for analysis was the school rules or motto. Respondents indicated that they have established school rules, as noted in their building handbooks, but their school mottos were more academic-oriented than behaviorally related. Many group members indicated that they have recently created a list of only five rules, as prescribed by the PBS model. The district's present rules and motto, entitled School Rules/Laws/Violations are outlined and detailed in respective building handbooks. Through interviews and group discussion, it was evident that students were acknowledged for doing well socially in academic settings. However, these social/behavioral rewards were typically non-tangible and afforded in the form of praise and oral reinforcement. Social activities, acknowledgements, and routines utilized in the district were concentrated more at the elementary level and included, but were not limited to student of the month, positive letters home, commendation stickers, and verbal praise.

The school-wide discipline teams were examined next with those convened, in which personnel were asked if the district discipline team taught and reviewed the school-wide program

to district staff. This was acknowledged as occurring, as led by the program implementation coordinator from the local SERRC. In inquiring about the representativeness of the behavioral teams, they were viewed as presently not being entirely representative or sufficiently established. The team is scheduled to meet monthly or as needed under the leadership of the district superintendent and behavioral support specialist (i.e., SERRC consultant). It was determined through discussion that the building teams did not provide faculty updates on activities and data summaries as much as preferred. The SERRC consultant and mental health personnel member served in the capacity of out-of-school liaisons in the district to support personnel on positive behavior support systems development. Understanding that their school received another consecutive rating of Excellent on the Ohio report card, it was noted that their school improvement goals were presently more of an academic then behavioral sort. Present grant funding and future allocated fiscal support from the Board of education for building and maintaining the school wide-behavioral support program had been secured.

Further additional interview questions were targeted to core team leaders and then imparted to other focus group members for discussion. The first from this set of questions examined if the leadership teams used discipline data to make decisions. Team leaders and others present concluded that discipline data was used as high incidence accrued, though not as regularly as deemed beneficial. Of the students surveyed, it was found that they were not familiar at all with the district's PBS program presently being implemented. When asked about known school rules, only common universal school rules were recalled. Students were also asked if they had received rewards for behaving appropriately, in which responses indicated "no" for systematic receipt, though occasionally they were orally recognized for behaving well.

The effectiveness, efficiency, and relevance of the PBS practice were analyzed based on the first year of the implementation process. Staff members were unable to determine the efficacy of the PBS practice since it was not fully implemented (i.e., too soon to determine). Efficiency of program operation was noted as a program component strength due to the grants secured and fiscal support from the Board. Under relevancy, a contextual fit did not completely exist among the practice, the individuals employing the practice, and the setting or culture in which the practice took place. The school-wide program, for the most part, was still perceived as an add-on program (i.e., one that was not integrated/integral) and as one that had not been fully not fully integrated into daily practice (e.g., school culture). In order to analyze the relationship of the results between the initial district-wide survey (i.e., EBS survey) administered in the fall of 2003 and the end of the year assessment (i.e., SET-SW features) to the two research questions, a comparative table linking the two has been constructed which may be referenced in Appendix P.

For evaluation purposes, schools are considered to be implementing SWPBS when the score on the overall summary for a school is 80% or higher and the score on the individual subscale expectations taught is over 80% (Horner, Todd et al., 2004). Though the results after the first year of implementation only yielded a SET-SW mean of 53%, the district leadership team is confident that they are on track understanding that it typically takes 3 years to fully implement school-wide PBS.

In-Service/Training Sessions

Training sessions for district personnel were provided each month during the program implementation year of 2003-04 in accordance to an established schedule. Four in-service training sessions took place during the first semester of the school year. In August, personnel were afforded an implementation overview and introduction to the foundations of PBS. Module

1, organizing the classroom, from COMP accompanied this introductory training session. September's training covered an introduction to systems change in schools along with planning and teaching rules and procedures from module 2 of COMP. Features of a systems approach to effective behavior support and using data for decision making from the PBS manual were instructed during the third session in October. Managing student work and improving student accountability (COMP, module 3) also was provided. The training session of November reviewed school-wide maintenance and individual systems of PBS and maintaining good behavior from module 4 of COMP. No district-wide in-service training session took place during the short school month of December. Table 27 illustrates the post-evaluation data averages for the monthly in-service training sessions that took during the 2003-04 school year.

Five in-service training sessions took place during the second semester of the school year. In January, personnel completed COMP module 5 (planning and organizing instruction) along with using data for decision making from the PBS implementation curriculum guide. February's training session offered a follow-up session to the PBS segment on using data for decision making and also blended instruction from module 6 of COMP on how to conduct and facilitate instruction to maintain lesson momentum. The third training session of the second semester (March) entailed instruction from PBS on the review and maintenance of data with accompanying training from COMP module 7 (climate, communication, and self-management). To prepare for the following school year, April's training involved instruction on how to get the year off to a good start from COMP module 8, in which more guidance from PBS on how to use data for decision making was also afforded to participants. The final district-wide in-service of the 2003-2004 school year took place in May, in which convened participants conducted an all-staff implementation survey in an oral sharing format to share successes and identify areas in

Table 27

Sessions 1-9 In-service Training Post-Evaluation Data

		Survey Questions/Response Averages								
		1	2	3	4	5	6	7	8	9
($N = 9$) Sessions	*n*	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$
August	28	3.46	3.39	3.57	3.61	3.29	3.57	3.64	3.64	3.18
September	27	3.52	3.41	3.56	3.67	3.44	3.52	3.63	3.59	3.07
October	29	3.52	3.55	3.48	3.72	3.48	3.55	3.72	3.66	3.41
November	28	3.46	3.61	3.50	3.79	3.29	3.64	3.64	3.61	3.11
January	30	3.47	3.43	3.43	3.83	3.37	3.63	3.67	3.70	3.23
February	25	3.52	3.64	3.44	3.76	3.44	3.64	3.76	3.72	3.24
March	30	3.30	3.43	3.47	3.97	3.23	3.60	3.60	3.60	3.17
April	27	3.56	3.44	3.37	4.00	3.27	3.82	3.70	3.74	3.33
May	24	3.50	3.58	3.46	3.75	3.29	3.67	3.67	3.71	3.17
	Response Averages									$\bar{\bar{x}}$
	$\Sigma\bar{x}$	31.31	31.39	31.28	34.09	30.13	32.64	33.04	32.97	28.91	
	$\bar{x}$	3.48	3.50	3.48	3.79	3.35	3.63	3.67	3.66	3.21	3.53
	s^2	-0.004	-0.01	-0.07	0.01	-0.03	-0.02	0.001	0.03	0.04	
	s	-0.06	-0.1	-0.26	0.1	-0.17	-0.14	0.03	0.17	0.2	-0.03

need of improvement. This final training session culminated with collaborative action-planning efforts by participants in preparation for the second year (2004-2005) of school-wide program implementation. Table 28 lists the in-service training post-evaluation questions with summary averages for all nine sessions.

In reviewing the mean responses of in-service training sessions 1-9, an approval range of 64% - 76% was calculated (i.e., 3.21(2) x 10% = 64.2%; 3.79(2) x 10% = 75.8%). This was gauged by converting the 5-point Likert scale used on the post-training session evaluation form to percentages, in which an approval assessment percentage on a scale of 1-100 was generated. The overall quality and usefulness of the sessions, along with participants understanding of the

Table 28

In-service Training Evaluation Responses (Sessions 1-9 Averages)

	Poor - - - - - - - - - Excellent (1-5)	$\bar{X}$	Approval Rating
1.	The overall quality of the session.	3.48	69.6%
2.	The overall usefulness of the session.	3.50	70.0%
3.	My understanding of this topic before attending the session.	3.48	69.6%
4.	My understanding of this topic after attending the session.	3.79	77.8%
	Strongly Disagree - - - - - - - - - Strongly Agree (1-5)	**$\bar{X}$**	**Approval Rating**
5.	I will share the information from this session with others.	3.35	67.0%
6.	The purpose and goals of this session were clear.	3.63	72.6%
7.	The goals for this session were met.	3.67	73.4%
8.	My expectations of this session were met.	3.66	73.2%
9.	The scheduling of this session coincided with my need to know the information presented.	3.21	64.2%
		$\bar{X}$ 3.53	70.6%
		s 0.17	7.15

topics before attending the sessions yielded a 70% appraisal of the in-service trainings being excellent. A score of 76% was determined for participants understanding of the topics after attending the sessions, while a 67% calculation was accrued for personnel stating that they would share information obtained from the training sessions with others. A 73% approximation was determined from those that attended the trainings in agreeing that the purpose and goals of this session were clear and that the goals for the sessions were met. The lowest response percentage calculated, 64%, indicated that the scheduling of the sessions did not quite coincided with their need to know the information presented.

Response Data – All Sessions. Three open-ended response questions were listed at the bottom of each of the post-evaluation forms provided at each session. The first, "*As a result of this training session, I...*" invited participants to respond on what they have learned and on how they plan to use the newly acquired knowledge. Over 93% of the responses reviewed for this question offered positive insight, with a couple of reactions from participants being negative in tone. In addition, most of the responses focused on the topic instructed that particular day. The second unspecified question, "*Other*" simply provided an avenue for personnel to offer their feelings and thoughts regarding the session attended. An equal split of positive and negative responses were recorded for the second unfocused question, though the quantity of responses submitted was nominal. Unconstructive retorts for this expository question centralized around a theme that "nothing relevant was afforded" or that "too much information was provided in too short of a time period." The third question requested "*suggestions*" from stakeholders in attendance. The majority of comments from participants for this last question were positive and complimentary, alluding that their district (i.e., school-wide PBS program) was "heading in the right direction" and in praising to the presenter.

Findings and Results Summary

This chapter illustrated and reviewed the data collected in addressing the research questions of the study. The first research question questioned the extent that the actual PBS intervention had been implemented in relation to the planned program goals and objectives. Data obtained from the archival record review of school behavioral data and the planned intervention protocol directly addressed this question. The second research question measured the extent that the actual implementation support had been delivered in comparison to the implementation support system as planned. This was assessed explicitly by the data obtained from the EBS

School-Wide Behavioral Support Survey, Strategies to Facilitate Effective Program Delivery protocol, and the Barriers to Implementation Checklist. Other protocols utilized in the study - Observation Program Implementation Checkpoints, PBS Implementation and Planning Self-Assessment Blueprint, Barriers to Implementation Checklist, individual and group interviews, and the System-Wide Evaluation Tool: School-Wide (SET-SW) provided data that addressed and pertained to both research questions, in which their findings were incorporated accordingly. Data generated from each assessment administered and respective corresponding data illustrated in this chapter are analyzed in relation to the study's research questions in greater detail in the following final chapter.

CHAPTER V

DISCUSSION

The purpose of this chapter is to discuss the study results. First, results are interpreted within the framework of the research questions and relative to the phases of the intervention. Second, implications and recommendations for practitioners and future research will be considered. Finally, the study's limitations are addressed.

Taken as a whole, the data presented in Chapter Four provided evidence of the successful implementation of the PBS goals, objectives, and support systems in one school. Despite the general efficacy of the program, stakeholder questions regarding the process were noted. For example, district personnel, while indicating that the plan had been implemented as prescribed, shared a feeling of ambiguity regarding program components. Nevertheless, such questions did not seem to interfere with the institutionalization of the program.

Research Questions and Evaluation Framework Revisited

The two fundamental research questions for this study were:

1. To what extent has the actual PBS intervention been implemented in relation to the planned program goals and objectives; and
2. To what extent has the actual implementation support been delivered in comparison to the implementation support system as planned?

These questions were addressed through a three-phase plan of evaluation (Pre-Adoption, Delivery, and Post-Delivery). Both quantitative and qualitative measures of stakeholder involvement comprised the evaluation plan. The discussion of the results will be organized by each phase of the evaluation plan.

Pre-Adoption

Pre-Adoption Phase data were obtained via two measures:

1. Archival School Behavioral Record Review
2. EBS School-Wide Behavioral Support Survey

An examination of the measures completed during the Pre-Adoption Phase revealed that all personnel received the prescribed training and implementation support, though qualitative (i.e., oral) stakeholder response data indicated moderate concern that information was not efficiently conveyed by program leaders to enable them to be sufficiently knowledgeable and confident with their efforts. Sugai and Horner (2001) assert that it is imperative to prioritize sufficient communication and dialogue with internal and external stakeholders throughout implementation. In acknowledgement of this, the need became apparent to establish a supportive, problem-solving system that would facilitate discussion as a means to acquire sufficient background knowledge about the program and its theory to make informed decisions.

Annual detentions were comparatively analyzed in brief during this phase, understanding that the primary purpose of the study focused on implementation rather than outcome evaluation. Though not conclusive from the measures employed by this study, a slight reduction in after school and Saturday school detentions administered from prior year totals was revealed via the *Archival School Behavioral Record Review.* The use of office referrals and suspensions as gauges of student behavior has been supported by numerous researchers (Skiba, Peterson, & Williams, 1997; Taylor-Green et al., 1997; Tobin & Sugai, 1999; Wright & Dusek, 1998) as valid ways of tracking school behavior patterns.

Responses to the *EBS School-Wide Behavioral Support Survey* suggested that individual student needs ranked highest as the system to be targeted. However, the district leadership team

opted to focus primary efforts on the classroom settings system with the conviction that individual student needs could be addressed within the classroom. Results from the EBS Survey were used to determine the behavior support status of their school and guide the development of a school-wide action plan, which is consistent with recommendations of Sugai, Horner, and Todd (2000). By factoring in the positive quantitative data received (i.e., record review, survey), program leaders and the majority of implementers were pleased with the above average progress of the Pre-Adoption Phase (i.e., rating of "Good").

Delivery

Delivery Phase data were obtained via four measures:

1. Planned Intervention Checklist
2. Planned Implementation Support Checklist
3. Observation Program Implementation Checkpoints
4. PBS Implementation and Planning Self-Assessment Blueprint

The delivery of planned activities of the school-wide behavioral support program was the primary focus of this phase of program evaluation. The intervention and implementation support checklists were the chief assessments administered in responding to the two research questions put forward. Although this stage of program implementation posed some challenges and slight apprehension, district team leaders and personnel approached it in a collaborative and assured manner. Such collaboration, especially in the face of apprehension, is critical to the success of PBS (Lewis & Sugai, 1999; Sugai et al., 1999; Walker et al., 1996).

An analysis of the procedures completed during the Delivery Phase revealed a discrepancy between the averaged responses of the intervention and implementation support and the strategies for effective program delivery results, which leaves room for speculation regarding

the satisfactory rankings attained. More specifically, average ratings of the intervention and implementation support suggested both were satisfactorily implemented. In contrast, evaluation of the strategies to facilitate effective program delivery generated an average rating of "Fair." As suggested by Chen (1998) discrepancies in systems must be identified and understood since they may help explain variation in effects as a result of the way in which the program was implemented.

Observation checkpoints were conducted quarterly as an additional measure to periodically assess implementation fidelity. This procedure performed is supported by Maher and colleagues (Maher & and Bennett, 1984; Maher et al., 1984; Maher & and Kratochwill, 1980) who suggest that the basis for implementation is program design, which includes the monitoring of the specific elements necessary for a program to function appropriately. Observation data indicated that procedures and events adhered to the outline of planned training activities. Participants were observed sporadically employing various behavioral management techniques taught during training. While a random sample of the teachers/classrooms was observed, the fact that observations are only a brief snapshot of time within a teacher's workday and the potential for observer bias limit a direct conclusion that educators were consistently practicing newly acquired behavior management methodologies.

The *PBS Implementation and Planning Self-Assessment Blueprint* was administered to serve as a multi-level guide for appraising the implementation status of the PBS organizational systems and to develop and evaluate the PBS action plans. These aims are in alignment with the tenets advocated by the Center on Positive Behavioral Interventions and Supports (University of Oregon, 2004) that the purpose of the Blueprint is to provide implementers with guidelines that enhance accurate and durable implementation of PBS practices and systems to improve

efficiency and success. The intervention program had been tactically structured to regularly assess the program's implementation and expansion, thus providing comparison data from year-to-year (Sugai & Horner, 2001; Greenberg, et al., 2003; Chen & Rossi, 1983).

Response averages calculated from the Blueprint indicated that the chief items for PBS program implementation were wholly or partially in place. However, the extended responses provided by stakeholders suggested that other significant features were considered either not in place or not known to be in place (i.e., effectively communicated). Though a substantial quantity of items central to what constitutes a PBS program had been adequately established, only a rating of "Fair" was obtained on the *Strategies to Facilitate Effective Program Delivery* checklist for the Delivery Phase. Specific elements essential to the school-wide program were identified for action planning by team leaders after acknowledging the differences between the quantitative data and qualitative responses. Horner and Sugai (2001) assert that the Blueprint is intended to make the conceptual theory, organizational models, and specific practices more accessible and to serve as a catalyst for prompting and promoting the durable and expanded use of PBS. The aforementioned identification, targeting, and planning for change based on data obtained from the Blueprint is in adherence to the protocol's purported intent.

It should be noted that a positive school atmosphere supporting open communication, exchange of ideas, and professional growth already existed prior to program implementation. These valuable dispositions should have aided in the assessment of program implementers' skills and satisfaction on an ongoing basis. This, however, was not the case. The PBS program was not integrated as smoothly as intended. It has been recommended that program leaders structure and schedule communication opportunities that are not evaluative in nature (e.g., anonymous feedback) to regularly obtain an exchange of ideas and feedback to monitor implementation

quality (Dane and Schneider, 1998). Finally, parent and community input was obtained in the identification and development of the program, however, continued family involvement was needed (e.g., program goals and progress, decision-making, activities) to enable parents to model, support, and employ the skills their children were learning in school at home.

Post Delivery

Post Delivery Phase data were obtained via four measures:

1. Barriers to Implementation Checklist
2. Individual Semi-Structured Interview Questions
3. Focus Group Discussion Questions
4. System-Wide Evaluation Tool: School-Wide (SET-SW)

The third and final phase of the program evaluation addressed the summative indicators for year one of the PBS program. Post Delivery Phase evaluations revealed that the overall program was implemented adequately with few barriers. However, a moderate feeling of ambiguity still lingered with stakeholders as noted by recurring themes of inadequate communication, guidance, and dissemination (e.g., rating of "Fair"). This suggests a need for additional support and training.

Barriers to program implementation were evaluated to assess the intervention and support system. This practice is consistent with the findings of Greenberg, Zins, Elias, and Weissberg (2004) who indicate that it is necessary to identify and address potential obstacles that schools may encounter in their efforts to provide the necessary infrastructure and climate to facilitate successful program implementation. A convergence of data sources (e.g., narrative responses from educators, ratings by the leadership team, and direct observation) indicates that the potential barriers to program implementation were not detrimental to the program operation.

Questions administered from the individual semi-structured interviews were abstracted from the *Effective Behavior Support Team Implementation Checklist* as a follow-up to the respondent questionnaires. This strategy is consistent with Greene and Caracelli (2000) who found that interviews are particularly useful for obtaining the story behind a participant's experiences and enables the interviewer to pursue in-depth information. While the survey results from the first two program delivery phases reflected fairly positive perceptions, the individual interview revealed a somewhat different picture. More specifically, only about a quarter of those who were interviewed considered program goals to be in progress/achieved. It may be that the initial surveys restricted personnel to set program-specific responses. However, when not restricted to fixed response options respondents were free to share their concerns regarding program implementation.

The focus group discussion was conducted as a culminating effort to have personnel reflect on data from administered protocols and respond to the the two guiding research questions to assess program implementation efficacy (McNamara, 1998). Two important areas of concern revealed during the focus group discussion were (a) broad school-wide application of the PBS program and (b) comprehensive communication. Building personnel shared that elements of the program had been employed, noting positive changes, though an all-inclusive application throughout the entire building was still needed. Such concerns are supported by researchers who recommend that schools develop broader, proactive, positive school-wide systems of behavior management (e.g., Colvin, Kame'enui, & Sugai, 1994; Sugai & Homer, 1994). Acknowledging that PBS activities have occurred, participants had difficulty attributing them to the program's goals and objectives since the "3-year" plan with both short and long-term goals had not been adequately disclosed to them. All things considered, outcomes from this

discussion advanced building stakeholders' point of view and understanding about the requirements of their PBS program and its present implementation status.

The Systems-Wide Evaluation Tool (SET-SW) was administered as a culminating quantitative analysis of the program's implementation to appraise the essential attributes of the school-wide behavior support program. By design, the SET-SW enables school leaders to identify trend lines of improvement and sustainability over time (Sugai, Lewis-Palmer, Todd & Horner, 2001). This tool revealed that the effectiveness, efficiency, and relevance of the PBS program were becoming established with a SET-SW score exceeding 50%. According to Horner, Todd, and colleagues (2004), a school is effectively implementing school-wide PBS when an overall SET-SW mean of 80% or higher is achieved. It should also be noted that it takes up to three years to fully implement the program into the culture of a school and reap long-term benefits (Horner, et al., 1998). Generally speaking, the results attained from the SET-SW provided the school with baseline data to guide action planning for improvement and projected sustainability.

In-service evaluation data were also collected and tabulated at the conclusion of each training session conducted in order to corroborate post-delivery implementation. The final session of nine monthly trainings was found to be the most beneficial since it culminated with a planning meeting that identified program areas in need of improvement, further training needs, and prompted the writing of an initial action plan for the following school year. Staff members intended to use the SET-SW data paired with supplementary discussions from trainings to make informed decisions about their program to improve its overall quality. Altogether, the training sessions were perceived by participants to be educationally valuable to their present knowledge base and advantageous for implementation into their current classroom practice.

Information from interviews and focus group discussion can be integrated into the existing school structure (e.g., incorporate program discussions into faculty meetings and link the PBS intervention training into other school programs) and become a part of staff development. Following suggestions of Sugai and Pruitt (1993) and Sugai, Horner, Dunlap and others (2000), building leaders made plans to make the program a permanent part of their school's curriculum by incorporating PBS lessons and activities in teacher lesson plans and disseminating strategies that inform their school community about the program and its progress (e.g., school newsletter summaries, PBS brochure, articles in the local newspaper). The success of this effort would represent true institutionalization of the program.

Though many district personnel revealed a feeling of uncertainty regarding the status of their program after the first year of implementation, they have acknowledged the timeline required (e.g., up to 3 years) for broad implementation (Center on Positive Behavioral Interventions & Supports, 2001) and understand when to experience long-term outcomes. Consistent with other studies (e.g. Gottfredson, 1984; Weiss, 1997; Luiselli, Putnam, & Sunderland, 2002) program leaders have acknowledged faculty needs to have inclusive feedback provided efficiently on program progress, enhanced implementation, and other inevitable factors that affect implementation quality. After reflecting upon the assessment activities of the Post-Delivery Phase, district personnel became more open-minded to acquiring further understanding of their program, adapting it to meet their own needs, and to having it become a permanent part of their district culture. By employing TDE to program implementation (Chen, 1994), building personnel developed a better understanding of how and why the outcomes resulted in their new program and have gained insight on how to use data to improve the effectiveness of their present program.

Forthcoming District Action Plans

Future intervention training (i.e., coaching) for personnel who are actively involved in developing comprehensive plans for students with problem behaviors (e.g., school psychologist, social worker, teacher team leaders, special education personnel, mental health partners from local agencies) was planned for the beginning of the school year following program implementation. Planned building leadership content included: (a) practices and processes for applying wraparound support through school-based teams; (b) guidelines for developing effective BIPs and academic interventions as part of comprehensive tier 2 and 3 supports for individual students; and (c) strategies and processes for accessing mental health supports and other community resources to address specific needs of students and families. Training session content devised for all staff included: (a) practices and processes for developing and implementing function-based behavior support plans for small groups or individuals targeted through review of school-wide data and teacher referral; (b) strategies for securing teacher participation and understanding of the FBA/BIP process; (c) processes for evaluating the effectiveness of FBA and BIPs performed; and (d) coaching strategies to educate faculty on how to better assist with the FBA process, resulting in effective BIP development. These training components were derived from study data and are consistent with content recommendations found in the literature (e.g., Carr et al., 1997; Foster-Johnson & Dunlap, 1993; Horner, 1994; O'Neill et al., 1997; Sugai, Horner, & Sprague, 1999; Sugai, Lewis-Palmer, & Hagan, 1998; Tilly et al., 1998).

Implications and Recommendations for Practitioners and Future Research

Positive Behavioral Interventions and Supports

A proactive school-wide approach to discipline grounded in the extant research literature

would seem to be a logical choice for addressing challenging behaviors faced by school personnel given the ever-increasing severity and variety of student misbehaviors (see Chapter 2) and the ineffective means of disciplining students typically employed (i.e., individually and in a punitive manner). Process data presented in this dissertation is in alignment with implementation procedures utilized in prominent outcome-based research studies (e.g., Sugai & Horner, 2002, et al.), demonstrating that school-wide positive behavioral support is the preferred means for systematically improving student misbehavior in schools.

Several suggestions for future research and practice are:

1. *High school data lacking*. Empirical evidence of the outcomes of PBS at the high school level is still inadequate (Sugai & Horner, 2002). Systems of school-wide positive behavior support have been implemented, sustained, and expanded at the elementary and middle school levels. However, the same levels of adoption have not been documented at the high school level. PBS implementation that includes the high school level, as exhibited in this study, is needed to reveal the possibilities at this level and to examine what variations and adaptations should be made in order to maximize implementation outcomes. Research demonstrations are needed to illustrate the areas that make high schools distinctive from elementary and middle schools.
2. *Program sustainability*. The attitudes and beliefs of teachers, school administrators, support staff, and members of the broader community who guide school-related decisions have an effect on implementation quality and the overall success of program implementation. Many school programs implemented are initiated, have immediate temporary appeal and value, and then slowly vanish. Issues related to (a) accuracy, fluency, and maintenance of implementation; (b) durability of outcomes; and (c) expansion of implementation efforts

must be explored and policies altered to provide for PBS sustainability (Sugai, Horner, Dunlap, et al., 2000). The addition of theory-identification to program implementation, as exemplified by this study, may enhance program sustainability by redirecting implementers back to the purpose of their efforts. There is a need to develop programs of research that clarify the theory embedded within implementation initiatives, for this has been identified as what contributes most to detect changes in student and adult behavior (Cook et al., 2000). Maintenance recommendations for program leaders are limited without explicit theory-enriched implementation measures (Harachi et al., 1999).

3. *Stakeholder mindset*. As identified in the literature and detected in this study, one of the greatest barriers to PBS implementation is the paradigm shift challenge of changing the mindset of educators and administrators (e.g., school culture) to embrace the concept of proactive and positive interventions and supports for student behavior change. A question that remains is what best motivates teachers and administrators to acknowledge the urgency and need for this change in thinking and remain committed to the transformative process. It is recommended that schools implementing school-wide PBS focus on a team-based system approach to aid personnel in accepting the discipline philosophy of proactively teaching appropriate behavior to all students in their school. Rather than continue to employ common reactive punitive discipline approaches, a school's philosophical system needs to be altered to define and teach behavioral expectations, acknowledge appropriate behaviors, and correct behavioral errors in a proactive manner (Sugai & Lewis, 1996).
4. *Wraparound support*. To enhance deep-rooted implementation of school-wide PBS and reap the full benefits that it has to offer, it is recommended that implementers enlist and fully access the support of outside agency involvement (e.g., mental health) and consultation.

School stakeholder involvement that extended beyond the campus boundaries to parental and community involvement was minimally attended to in this study, though plans for expansion are now in place. Comprehensive systems-change initiatives such as school-wide PBS must be designed to fashion a seamless web of supports and services that "wrap around" students to eliminate the existing fragmentation and categorical separation of commonly implemented programs (Nersesian et al., 2000). This extended systems-change recommendation will offer an opportunity to integrate and institutionalize PBS methods into the culture of the school and to broaden effective and coordinated participation in the program to family members and community agency personnel to address evolving needs.

5. *Inclusive communication*. One final PBS suggestion resulting from the implications of the overall results of the present study would be to structurally arrange intermittent clarity safeguards (i.e., formative evaluative means) to periodically ascertain implementer mind-set (e.g., full understanding of modus operandi; morale) (Scheirer, 1994). This would potentially alleviate uncertainty and other probable implementation barriers in future studies as experienced in this study. For one may find difficulty in inherently supporting and wholeheartedly partaking in the implementation of a school-wide initiative without fully understanding the underlying principles and procedures of the program.

Theory-Driven Evaluation

Traditional or method-driven evaluations seldom focus on *why* a program was effective, *how* it can be improved, or *how* the program caused the intended or observed outcomes. Research identified in the literature review, especially studies performed by Chen (1983, 1989, 1990, et al.), assert that having an articulated program theory is vital to provide the conceptual basis for the design and operation of a program and to define the significant components of

implementation. A theory-driven approach to validity was proposed for and demonstrated by this study. The central argument was that a model or theory (i.e., PBS) should be formulated in program evaluation and the modeling process should include the identification of potential threats (i.e., barriers) to validity in program implementation (Chen & Rossi, 1983; 1987; 1989; 1990; 1993). The data presented in this dissertation support this argument.

Suggestions for future research and practice related to this issue include:

1. *Additional TDE research.* Factors related to the implementation of prevention programming involving theory-driven evaluation are under-researched. Further research is needed in devising studies that promote an understanding of how programs work, such as the present research undertaken, not just whether they work (Greenberg, Zins, Elias, & Weissberg, 2003). More studies involving TDE would provide essential information for factors that influence the quality of implementation for different types of programs (Lipsey & Pollard, 1989) and cater to the relationship between quality of implementation and both short and long-term outcomes. Additional investigation examining program effectiveness is needed, as is research on widespread program dissemination involving theory-based implementation evaluation. Greenberg and others (2000) advocate that more studies employing TDE utilizing the underlying program theory to guide the evaluation would allow program implementers the ability to spell out the program objectives and to single out indicators that verify to what extent their intended program had actually been implemented.
2. *Utilization of valid measures*. Features of the theory-driven evaluation model such as technical support, implementer readiness, and quality of the implementation environment are narrow or are unreliable at this time. Few or no reliable, valid measures are currently available (Gersten et al., 2000). More cost-effective and psychometrically sound measures

still need to be developed. In particular, specific measures and procedures for assessing implementation quality are critically needed. Though not identified and employed in the present study, it has been made evident that valid measures are currently available for employment by researchers and program evaluators (Chen & Rossi, 1983). One charge for program implementers contemplating use of theory-driven evaluation of their program implementation would be to utilize such proven procedures.

3. *Theory confirmation*. As illustrated by this study, a purposeful reason for examining and monitoring implementation is to analyze whether the change process occurred as expected (e.g., program theory). Schools implementing school-wide improvement programs need to validate the program's underlying theoretical basis for implementation efficacy (Chen & Rossi, 1987). Understanding that theory classifies the vital components of an intervention, the conditions essential to implement the program, and the ways in which these components generate change in the participants (Chen, 1990, and 1998; 1998; Weiss, 1995); it is imperative that school personnel assess how these components were affected during program implementation. By doing so, it becomes possible to examine whether the change process operated as hypothesized when they designed the program and its implementation procedures (Cook et al., 2000; Harachi et al., 1999).

Conclusion

A theory-driven model for studying the implementation of the PBS program was selected to serve as the conceptual model of this study. The employed model differentiated the causative theory that explained program outcomes from the prescriptive theory that described how the program should be implemented to achieve intended objectives. The TDE also based evaluation of implementation quality on both measures of program delivery itself and on measures of the

support system for training and consultation. In addition, the adopted conceptual model identified the influences external to the program that may have posed considerable impact on the quality of the program implementation. School district participants in this study actively engaged in implementing PBS over the course of one school year within their respective building and planned to continue its operation for years to come with sustaining structures being established. Staff have committed to the program and have begun to experience the benefits of their efforts in terms of developing and maintaining a more positive school environment for all students, increasing opportunities to teach more effectively, and situating themselves in a position to provide more support to individual students with challenging behavior.

The long-range goal of the district was to enhance and sustain an effective behavior support system that will continually increase their capacity to provide quality instruction and behavior management to their entire student body. Utilization of the TDE process to examine the implementation status of their school-wide PBS program contributed to implementation fidelity. This was attributed to both formative and summative evaluation procedures performed that analyzed embedded action plans, materials, professional development, technical support, and quality checks. Suggestions regarding next steps for the immediate district and the PBS field of study were provided. In sum, the qualitative and quantitative data collected demonstrated a positive first year of program implementation. Certain reservations were acknowledged. This study supported the value of utilizing a theory-driven methodology in program evaluation.

Study Limitations

Limitations associated with the study included:

1. The sample of educational stakeholders was drawn from one school/geographic location and may not be representative of the general population of all public schools, thus, findings may

not be generalizable to other school districts. Though attempts were made to include a representative sample of the educational stakeholders of the district, personnel randomly sampled may not necessarily be totally representative of the entire district population. Specifically, two students were interviewed and in-class observations were informal, relying on information relayed by classroom teachers to corroborate with recorded findings. Future research should attempt to replicate these findings across varied contexts (e.g., other geographical regions and school districts, socioeconomic levels, racial stratifications) to address ecological validity concerns.

2. Though the majority of the measurement protocols administered in this study are widely used in the assessment of the implementation of PBS programs, results may vary with utilization of instruments with different psychometric properties or dimensional foci. Replications of this study using different measurement tools would address concerns relating to instrumentation (e.g., validity/reliability).
3. The study used both quantitative and qualitative measures. However, the employment of more in-depth and structured qualitative measures (e.g. coding/transcribing themes) may have produced more confidence in the overall results.
4. The PBS behavioral intervention specialist from the regional SERRC was the primary program implementer and conducted the informal observations. This may be deemed as a limitation to one measurement of the study since she may be regarded as a biased observer with a possible vested interest in the outcomes and processes reported. At the very least one could argue that a lack of independent observers, hence no inter-observer agreement, represents a potential confound.

5. There was no control group with which to compare results of this study. In addition, several aspects of the schools practices could not be controlled for under applied field research. Unfortunately, gains in social/ecological validity are often associated with limitations in experimental control.

REFERENCES

Adelman, H., & Taylor, L. (1997). Addressing barriers to learning: Beyond school-linker services and full service schools. *American Journal of Orthopsychiatry, 67*(3), 19-26.

Alberto, P. A., & Troutman, A. C. (1999). *Applied behavior analysis for teachers* (5th ed.). Columbus, OH: Merrill.

Alberto, P. A., & Troutman, A. C. (2003). *Applied behavior analysis for teachers* (6th ed.). Upper Saddle River, NJ: Merrill (Prentice Hall).

Albin, R. W., Luchyshyn, J. M., Horner, R. H., & Flannery, K. B. (1996). Contextual fit for behavioral support plans: A model for goodness of fit. In L. Koegel, R. Koegel, & G. Dunlap, (Eds.), *Positive behavioral support: including people with difficult behavior in the community* (pp. 81-96). Baltimore, MD: Paul H. Brookes.

Anderson, J. L., Albin, R. W., Mesaros, R. A., Dunlap, G., & Morelli-Robbins, M. (1993). Issues in providing training to achieve comprehensive behavioral support. In J. Reichle & D. P. Wacker (Eds.), *Communicative alternatives to challenging behavior: Integrating functional assessment and intervention strategies*, Vol. 3 (pp. 363-406). Baltimore: Paul H. Brookes.

Ayres, B. J., Meyer, L. H., Erevelles, N., & Park-Lee, S. (1994). Easy for you to say: Teacher perspectives on implementing most promising practices. *Journal of the Association for Persons with Severe Handicaps, 19*, 84-93.

Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1,* 91-97.

Bear, G. (1996) School discipline in the United States: Prevention, correction, and long-term social development. *School Psychology Review, 27*(1), 721-724.

Behavior Home Page (2001). The Kentucky Department of Education: http://www.state.ky.us/ agencies/behave/homepage.html.

Berndt, T. J., & Keefe, K. K. (1995). Friends' influence on adolescents' adjustment to school. *Child Development, 66,* 1312–1329.

Bickel, W. E., & Bickel, D. D. (1986). Effective schools, classrooms, and instruction: Implications for special education. *Exceptional Children, 52*(6), 489-500.

Bickman, L. (Ed.). (1987). *Using program theory in evaluation.* San Francisco: Jossey-Bass.

Bickman, L. (Ed.). (1990). *Advances in program theory.* San Francisco: Jossey-Bass.

Biglan, A. (1995). Translating what we know about the context of antisocial behavior in to a

lower prevalence of such behavior. *Journal of Applied Behavior Analysis, 28*, 479-492.

Bijou, S. W., & Baer, D. M. (1961). *Child development I: A systematic and empirical theory.* Englewood Cliffs, NJ: Prentice Hall.

Bijou, S. W., & Baer, D. M. (1978). *Behavior analysis of child development.* Englewood Cliffs, NJ: Prentice Hall.

Bijou, S. W., Peterson, R. F., & Ault, M. H. (1968). A method to integrate descriptive and experimental field studies at the level of data and empirical concepts. *Journal of Applied Behavior Analysis, 1,* 175-191.

Bijou, S. W., Peterson, R. F., Harris, F. R., Allen, E., & Johnston, M. S. (1969). Methodology for experimental studies of young children in natural settings. *Psychological Record, 19,* 177-210.

Blakeslee, T., Sugai, G., & Gruba, J. (1994). A review of functional assessment use in data-based intervention studies. *Journal of Behavioral Education, 4,* 397-414.

Bodilly, S. J., Keltner, B., Purnell, S., Reichardt, R., & Schuyler, G. (1998). *Lessons from New American Schools' scale up phase: Prospects for bringing designs to multiple schools.* Santa Monica, CA: RAND.

Broussard, C. D., & Northup, J. (1995). An approach to functional assessment and analysis of disruptive behavior in regular education classrooms. *School Psychology Quarterly, 10,* 151-164.

Carr, E. G. (1994). Emerging themes in the functional analysis of problem behavior. *Journal of Applied Behavior Analysis, 27,* 393-400.

Carr, E. G., & Carlson, J. I. (1993). Reduction of severe behavior problems in the community using a multicomponent treatment approach. *Journal of Applied Behavior Analysis, 26,* 157-172.

Carr, E. G., Dunlap, G., Horner, R.H., Koegel, R.L., Turnbull, A.P., Sailor, W., et al. (2002). Positive behavior support. Evolution of an applied science. *Journal of Positive Behavior Interventions, 4,* 4-16.

Carr, E. G., Horner, R. H., Marquis, J. G., Turnbull, A. P., Magito-McLaughlin, D., McAtee, M. et al. (1999). *Positive behavior support as an approach for dealing with problem behavior in people with developmental disabilities: A research synthesis*. American Association on Mental Retardation Monograph Series.

Carr, E. G., Levin, L., McConnachie, G., Carlson, J. I., Kemp, D. C., & Smith, C. E. (1994). *Communication-based intervention for problem behavior: A user's guide for producing positive change*. Baltimore: Paul H. Brookes.

Carr, E. G., Robinson, S., & Palumbo, L. W. (1990). The wrong issue: Aversive versus nonaversive treatment. The right issue: Functional versus nonfunctional treatment. In A. C. Repp & N. N. Singh (Eds.), *Perspectives on the use of nonaversive and aversive interventions for persons with developmental disabilities* (pp. 361-379). Sycamore, IL: Sycamore Press.

Center for Effective Collaboration and Practice (1998). *Addressing student problem behavior: An IEP team's introduction to functional behavioral assessment and behavior intervention plans.* American Institutes for Research: Washington, D.C.

Center for Positive Behavior Supports and Interventions (2001). National Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS): http://www.pbis.org/main.html.

Chapman, D., & Hofweber, C. (2000). Effective behavior support in British Columbia. *Journal of Positive Behavior Interventions, 2*(4), 235-237.

Charles, W. (1995). Reliability of the youth risk behavior survey questionnaire. *American Journal of Epidemiology, 141*(6), 575-580.

Charters, W. W., & Jones, J. E. (1974). *On neglect of the independent variable in program evaluation.* Eugene, OR: University of Oregon, Project MITT.

Chen, H.T. (1983). Evaluating with sense: The theory-driven approach. *Evaluation Review*, *7*, 283-302.

Chen, H.T. (1989a). The conceptual framework of the theory-driven perspective. *Evaluation and Program Planning, 12,* 391-396.

Chen, H. T. (1989b). The theory-driven perspective. *Evaluation and Program Planning*, *12,* 297.

Chen, H. T. (1990). *Theory driven evaluations*. Newbury Park, CA: Sage Publications.

Chen, H.T. (1994). Current trends and future directions in program evaluation. *Evaluation Practice, 15*(3), 229-238.

Chen, H. T. (1996). A comprehensive typology for program evaluation. *Evaluation Practice, 17,* 121–130.

Chen, H.T. (1997). Applying mixed methods under the framework of theory-driven evaluations. In J. Greene & V. Caracelli (Eds.), *Advancing mixed methods evaluation: New directions for program evaluation*. Jossey-Bass: San Francisco.

Chen, H.T. (1998). Theory-driven evaluations, (pp.15-34). In Herbert Walberg (Ed.), *Advances in educational productivity*. Greenwich, Connecticut: JAE Press.

Chen, H.T., & Rossi, P. H. (1983). Evaluating with sense: The theory-driven approach. *Evaluation Review 7*(3), 283-301.

Chen, H. T., & Rossi, P. H. (1987). The theory-driven approach to validity, *Evaluation and Program Planning, 10*(1), 95-103.

Chen, H.T., & Rossi, P. H. (1989). Issues of the theory-driven perspective. *Evaluation and Program Planning, 12*, 299-306.

Chen, H.T., & Rossi, P. H. (1990). Introduction: Integrating theory and practice in evaluations, (1-12). In Huey T. Chen & Peter H. Rossi (Eds.), *Theory and practice in program and policy evaluation.* Westport, CT: Greenwood.

Chen, H.T., & Rossi, P. H. (1993). *Using theory to improve program and policy evaluations*. Westport, CT: Greenwood.

Chittooran, M. M. (1998). Conflict resolution and peer mediation: A guide for educators. In Cantor, A. S. & Carroll, S. A. (Eds.), *Helping children at home and school: Handouts from your school psychologist.* Bethesda, MD: National Association of School Psychologists.

Christie, C., & Alkin, M. (2003). The user-oriented evaluator's role in formulating a program theory: Using a theory-driven approach. *American Journal of Evaluation, 24*(3), 373-385.

Coates, R. D. (1989). The regular education initiative and opinions of regular classroom teachers. *Journal of Learning Disabilities, 22,* 532-536.

Colvin, G., & Fernandez, E. (2000). Sustaining effective behavior support systems in an elementary school. *Journal of Positive Behavior Interventions, 2*, 251-253.

Colvin, G., & Lazar, M. (1997). *The effective elementary classroom: Managing for success*. Longmont, CO: Sopris West.

Colvin, G., Kam'eenui, E. & Sugai, G. (1993). School-wide and classroom management: Reconceptualizing the integration and management of students with behavior problems in general education. *Education and Treatment of Children, 16*, 361-381.

Colvin, G., Sugai, G., Good, R. & Lee, Y. (1997). Effect of active supervision and precorrection on transition behaviors of elementary students. *School Psychology Quarterly, 12*, 344-363.

Colvin, G., Sugai, G., & Kam'eenui, E. (1994). *Curriculum for establishing a proactive school-wide discipline plan: Project PREPARE.* Eugene, OR: Behavioral Research and Teaching, College of Education, University of Oregon.

Cook, E., Courchesne, R., Cox, N., Lord, C., Gonen, D., Guter, S., et al. (1993). Linkage-disequilibrium mapping of autistic disorder. *The American Journal of Human Genetics*, 62, 1077–1083.

Cook, T., Murphy, R. F., & Hunt, H. D. (2000). Comer's school development program in Chicago: A theory-based evaluation. *American Education Research Journal, 37,* 535–597.

Cook, T., & Shadish, W. (1986). Program evaluation: The worldly science. *Annual Review of Psychology, 37,* 193-232.

Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). *Applied behavior analysis*. Columbus, OH: Merrill.

Cordray, D. S. (1989). Optimizing validity in program evaluation: An elaboration of Chen and Rossi's theory-driven approach. *Evaluation and Program Planning, 1*(4), 372-385.

Cordray, D. S., & Lipsey, M. (1986). Program evaluation and program research. *Annual Evaluation Studies Review,* 1986.

Cosby, E. A. (1993). The "at-risk" decade. *Phi Delta Kappan, 74,* 598- 604.

Costner, H. (1991). What is theoretical in evaluation research? *Contemporary Sociology*, *20*(1), 92-94.

Cronbach, L. (1982). *Designing evaluations of educational and social programs*. San Francisco: Jossey-Bass.

Crone, D. A., & Horner, R. H. (2000). Contextual, conceptual, and empirical foundations of functional behavioral assessment in schools. *Exceptionality, 8*(3), 161-172.

Crone, D.A., & Horner, R.H. (2003). *Building positive behavior support systems in schools: Functional behavioral assessment*. New York: Guilford.

Dane, A. V., & Schneider, B. H. (1998). Program integrity in primary and early secondary prevention: Are implementation effects out of control? *Clinical Psychology Review, 18,* 23–45.

Davis, B. G. (1984). Building program evaluation into the public schools. In C. Mather, R. Illback and J. Zins (Eds.), *Organizational Psychology in the Schools*. Springfield, IL: Charles Thomas.

Dickie, R. F., Bauman, R. A., Belch, P. J., Lancaster, P. L., Lazor, R., Mule, B., et al. (1991). Special education teacher training: A noncategorical approach. *Education and Treatment of Children, 14,* 299-315.

Donaldson, S. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology. 17*(2), 245-260.

Dryfoos, J. G. (1997). The prevalence of problem behaviors: Implications for programs. In R. P. Weissberg, T. P. Gullotta, R. L. Hampton, B. A. Ryan, & G. R. Adams (Eds.), *Healthy children 2010: Enhancing children's wellness* (pp. 17–46). Thousand Oaks, CA: Sage.

Dunlap, G., Hieneman, M., Knoster, T., Fox, L., Anderson, J., & Albin, R.W. (2000). Essential elements of inservice training in positive behavior support. *Journal of Positive Behavior Interventions, 2*(1), 22-32.

Dunlap, G., Kern, L., DePerczel, M., Clarke, S., Wilson, D., Childs, et al. (1993). Functional analysis of classroom variables for students with emotional and behavioral disorders. *Behavioral Disorders, 18,* 275-291.

Dunlap, G., Kern-Dunlap, L., Clarke, S., & Robbins, F. R. (1991). Functional assessment, curricular revision, and severe behavior problems. *Journal of Applied Behavior Analysis, 24,* 387-397.

Dunlap, G., White, R., Vera, A., Wilson, D., & Panacek, L. (1996). The effects of multi-component, assessment-based curricular modifications on the classroom behavior of children with emotional and behavioral disorders. *Journal of Behavioral Education, 6,* 481-500.

Durand, M. V. (1987). "Look homeward angel" A call to return to our functional roots. *The Behavior Analyst, 10,* 299-302.

Durand, M. V., & Carr, E. G. (1985). Self-injurious behavior: Motivating conditions and guidelines for treatment. *School Psychology Review, 14,* 171-176.

Durlak, J. A. (1995). *School-based prevention programs for children and adolescents.* Thousand Oaks, CA: Sage.

Durlak, J. A. (1998). Why program implementation is important. *Journal of Prevention and Intervention in the Community, 17,* 5–18.

Eber, L. (1996). Restructuring schools through wraparound planning: The LADSE experience. In R. J. Illback & C. M. Nelson (Eds.), *School-based services for students with emotional and behavioral disorders* (pp. 139-154). Binghamton, NY: Haworth Press.

Eber, L. (2003). *The art and science of wraparound: Completing the continuum of school-wide behavioral support*. Bloomington, IN: Forum on Education at Indiana University.

Eber, L., Horner, R.H., Sugai, G., Lewandowski, H., Bohanan, H., & Hyde, K. (2005). *Illinois positive behavioral interventions and support project, 2004-2005 progress report*. LaGrange Park, IL. Available: http://www.pbisillinois.org.

Eber, L., & Nelson, C. M. (1997). School-based wraparound planning: Integrating services for students with emotional and behavioral needs. *American Journal of Orthopsychiatry, 67*, 385-395.

Eifert, G. H., Evans, I. M., & McKendrick, V. G. (1990). Matching treatments to client problems no diagnostic labels: A case for paradigmatic behavior therapy. *Journal of Behavior Therapy and Experimental Psychiatry, 21,* 163-172.

Elam, S., Rose, L., & Gallup, M. (1996). The 28th Annual Phi Delta Kappa Gallup Poll of the public's attitude toward the public schools. *Phi Delta Kappan, 78*(1), 41-59.

Elam, S., Rose, L., & Gallup, M. (1999) Office referrals and suspension: Disciplinary intervention in middle schools. *Phi Delta Kappan, 71*, 57-61.

Elias, M. J. (1997). Reinterpreting dissemination of prevention programs as widespread implementation with effectiveness and fidelity. In R. P. Weissberg, T. P. Gullotta, R. L. Hampton, B. A. Ryan, & G. R. Adams (Eds.), *Healthy children 2010: Establishing preventive services. Issues in children's and families' lives* (Vol. 9, pp. 253–289). Thousand Oaks, CA: Sage.

Elias, M. J., Zins, J. E., Greenberg, M. T., Graczyk, P., & Weissberg, R. P. (2000). *Integrating social-emotional and academic development in school reform: Implications within a "scaling up" model.*

Elias, M. J., Zins, J. E., Weissberg, K. S., Greenberg, M. T., Haynes, N. M., Kessler, R., et al. (1997). *Promoting social and emotional learning: Guidelines for educators.* Alexandria, VA: Association for Supervision and Curriculum Development.

Emerson, E. (1995) *Challenging behaviour: Analysis and intervention in learning disabilities*. Cambridge, MA: Cambridge University Press.

Emerson, E., Reeves, D., Thompson, S., Henderson, D., Robertson, J., & Howard, D. (1997). *The prevalence of challenging behaviour*. University of Manchester: Hester Adrian Research Centre.

Epstein, M. H., Nelson, C. M., Polsgrove, L., Coutinho, M., Cumblad, C., & Quinn, K. P. (1993). A comprehensive community-based approach to serving students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders, 1,* 127-133.

Evertson, C. M. (1985). Training teachers in classroom management: An experiment in secondary classrooms. *Journal of Educational Research 79*, 51-58.

Evertson, C. M. (1989). Improving elementary classroom management: A school-based training program for beginning the year. *Journal of Educational Research 83*, 82-90.

Evertson, C. M. (1997). Classroom management. In H. J. Walberg & G. D. Haertel (Eds.), *Psychology and educational practice,* Berkeley, CA: McCutchan.

Evertson, C. M., & Emmer, E. T. (1982). Effective management at the beginning of the school year in junior high classes. *Journal of Educational Psychology 74*(4), 485-498.

Evertson, C. M., & Harris, A. H. (1992). What we know about managing classrooms. *Educational Leadership 49(7), 74-78.*

Evertson, C. M., & Harris, A. H. (1999). Support for managing learning-centered classrooms: The classroom organization and management program. In H. J., Freiberg (Ed.), *Beyond behaviorism: Changing the classroom management paradigm,* Boston, MA: Allyn and Bacon.

Everston, C. & Harris, A. H. (2003). *COMP: Creating conditions for learning manual*, Vanderbilt University.

Fitzsimmons, M. K. (1998). *Functional behavior assessment and behavior intervention plans.* (ERIC EC Digest E571). Reston, VA: Council for Exceptional Children.

Ford, J. E. (1984). A comparison the three feedback procedures for improving teaching skills. *Journal of Organizational Behavior Management, 6*, 65-77.

Foster-Johnson, L., & Dunlap, G. (1993). Using functional assessment to develop effective, individualized interventions for challenging behaviors. *Teaching Exceptional Children, 25*, 44-50.

Fueyo, V. (1991). Implementing a field-based elementary teacher training program. *Education and Treatment of Children, 14,* 280-298.

Gay, D. (1987). Culturally relevant pedagogy: Ingredients for critical teacher reflection. *Theory into Practice, 42*(3), 195-202.

Gersten, R., Baker, S., & Lloyd, J. W. (2000). Designing high-quality research in special education: Group experimental design. *The Journal of Special Education, 34*(1), 2-18.

Gilbert, R. (1997). *Welcome to our world: Realities of high school students*. Harold Washington College, Chicago, IL: Corwin Press.

Gleason, M. M., & Hall, T. E. (1991). Focusing on instructional design to implement a performance-based teacher training program: The University of Oregon model. *Education and Treatment of Children, 14,* 316-332.

Gottfredson, G. D. (1984). A theory-ridden approach to program evaluation: A method for stimulating researcher-implementer collaboration. *American Psychologist, 39,* 1101–1112.

Gottfredson, D. G., Fink, C. M., Skroban, S., & Gottfredson, G. (1997). Making prevention work. In R. P. Weissberg, T. P. Gullotta, R. L. Hampton, B. A. Ryan, & G. R. Adams (Eds.), *Healthy children 2010: Establishing preventive services: Issues in children's and families' lives* (Vol. 9, pp. 219–252). Thousand Oaks, CA: Sage.

Graczyk, P. A., Weissberg, R. P., Payton, J. W., Elias, M. J., Greenberg, M. T., & Zins, J. E. (2000). Criteria for evaluating the quality of school-based social and emotional learning programs. In R. Baron & J. D. Parker (Eds.), *The handbook of emotional intelligence* (pp. 391–410). San Francisco, CA: Jossey-Bass.

Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2004). The study of implementation in school-based preventive interventions. *Theory, Research, and Practice*.

Greenberg, M., Weissberg, R., Utne-O'Brien, M., Zins, J., Fredericks, L., Resnik, H., et al, (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist, 58*(6/7), 466–474.

Greenberg, M. T., Zins, J. E., Elias, M. J., & Weissberg, R. P. (2003). School-based prevention: Promoting positive youth development through social and emotional learning. *American Psychologist*.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11,* 255–274.

Gresham, F. M. (1989). Assessment of treatment integrity in school consultation and prereferral intervention. *School Psychology Review, 18,* 37–50.

Gresham, F. M., Gansle, K. A., Noell, G. H., Cohen, S., & Rosenblum, S. (1993). Treatment integrity of school-based behavioral intervention studies: 1980–1990. *School Psychology Review, 22,* 254–272.

Hall, R. V., Panyan, M., Rabon, D., & Broden M. (1968). Instructing beginning teachers in reinforcement procedures that improve classroom control. *Journal of Applied Behavior Analysis, 1,* 315-322.

Harachi, T. W., Abbott, R. D., Catalano, R. F., Haggerty, K. P., & Fleming, C. B. (1999). Opening the black box: Using process measures to assess implementation and theory building. *American Journal of Community Psychology, 27,* 711–731.

Horner, R. H. (1994). Functional assessment: Contributions and future directions. *Journal of Applied Behavior Analysis*, *27*, 401-404.

Horner, R. H., Albin, R. W., Sprague, J. R., & Todd, A. W. (1999). Positive behavior support for

students with severe disabilities. In M. E. Snell & F. Brown, (Eds.), *Instruction of students with severe disabilities* (5th Edition) (pp. 207-243). Upper Saddle River, NJ: Merrill-Prentice-Hall.

Horner, R. H., Diemer, S. M., & Brazeau, K. C. (1992). Educational support for students with severe problem behaviors in Oregon: A descriptive analysis from the 1987-1988 school year. *Journal of The Association for Persons with Severe Handicaps, 17,* 154-169.

Horner, R. H., Dunlap, G., Koegel, R. L., Carr, E. G., Sailor, W., Anderson, J., et al. (1990). Toward a technology of "nonaversive" behavioral support. *Journal of The Association for Persons with Severe Handicaps, 15,* 125-132.

Horner, R.H., & Sugai, G., (2002). School-wide positive behavior support: An alternative approach to discipline in schools. In L. Bambara & L. Kern (Eds.), *Positive Behavior Support*. New York, NY: Guilford Press.

Horner, R.H. & Sugai, G. (1998). School-wide behavior support: An emerging initiative. *Journal of Positive Behavioral Interventions, 2*(4), 17-19.

Horner, R. H., & Sugai, G. (2000). School-wide behavior support: An emerging initiative (special issue). *Journal of Positive Behavioral Interventions, 2*, 231-233.

Horner, R. H., Sugai, G. Todd, A. W., & Lewis-Palmer, T. (1999-2000). Elements of behavior support plans: A technical brief. *Exceptionality, 8*, 205-216.

Horner, R. H., Sugai, G., Todd, A.W., & Lewis-Palmer, T. (2005). School-wide positive behavior support. In L.M. Bambara & L. Kern (Eds.), *Individualized supports for students with problem behaviors* (pp. 359-390). New York, NY: Guilford Press.

Horner, R.H., Todd, A.W., Lewis-Palmer, T., Irvin, L.K., Sugai, G., & Boland, J.B. (2004). The school-wide evaluation tool (SET): A research instrument for assessing school-wide positive behavior support. *Journal of Positive Behavior Interventions, 6*, 3-12.

Juvenile Justice Fact Sheet (1998). *School Violence Fact Sheet*, National Youth Violence Prevention Resource Center, (www.safeyouth.org).

Kagan, S. L., Goffin, S. G., Golub, S. A., & Pritchard, E. (1995). *Toward systemic reform: Service integration for young children and their families.* Falls Church, VA: National Center for Service Integration.

Kam'eenui, E. J., & Carnine, D. W. (2002). *Effective teaching strategies that accommodate diverse learners* (2nd ed.). Upper Saddle River, NJ: Merrill.

Kampwirth, T. J. (1988). Behavior management in the classroom: A self-assessment guide for teachers. *Education and Treatment of Children, 11*, 286-293.

Kauffman, J. (1997). *Characteristics of emotional and behavior disorders of children and youth* (6th ed.). Columbus, OH: Merrill.

Kemp, D. C., & Carr, E. G. (1995). Reduction of severe problem behavior in community employment using a hypothesis-driven multicomponent intervention approach. *Journal of The Association for Persons with Severe Handicaps, 20,* 229-247.

Kern, L., Childs, K. E., Dunlap, G., Clarke, S., & Falk, G. D. (1994). Using assessment-based curricular intervention to improve the classroom behavior of a student with emotional and behavioral challenges. *Journal of Applied Behavior Analysis, 27*, 7-19.

Kern, L., Dunlap, G., Clarke, S., & Childs, K.E. (1994). Student-assisted functional assessment interview. *Diagnostique, 19*, 29-39.

Kerr, M. M., & Nelson, C. M. (1998). *Strategies for managing problem behaviors in the classroom* (2nd ed.). Columbus, OH: Merrill.

Kerr, M. M., & Nelson, C. M. (2002). *Strategies for managing problem behaviors in the classroom* (3rd ed.). Columbus, OH: Merrill.

Kessler, R. (1999). *The soul of education: Helping students find connection, compassion, and character at school.* Alexandria, VA: Association for Supervision and Curriculum Development.

Kincaid, D. (1996). Person-centered planning. In L. Koegel, R. Koegel, & G. Dunlap (Eds.), *Positive behavioral support: Including people with difficult behavior in the community* (pp. 439-465). Baltimore, MD: Paul H. Brookes.

King, M. B., & Newmann, F. M. (2000). Will teacher learning advance school goals? *Phi Delta Kappan, 81*(8), 576-580.

Koegel, R., Koegel, L., & Dunlap, G. (1996). *Positive Behavioral Support: Including people with difficult behavior in the community*. Baltimore, MD: Paul H. Brookes.

Lane, K. L., Umbreit, J., & Beebe-Frankenberger, M. (1999). A review of functional assessment research with students with or at-risk for emotional and behavioral disorders. *Journal of Positive Behavioral Interventions, 1*, 101-111.

Lewis, T. J., Newcomer, L., Kelk, M., & Powers, L. (2003). Preventing and addressing aggressive and violent behavior through individual systems of positive behavioral support. *Reaching Today's Youth, 5*, 37-41.

Lewis, T. J., Chard, D., & Scott, T. (1994). Full inclusion and the education of children and youth with emotional and behavioral disorders. *Behavioral Disorders, 19*, 277-293.

Lewis, T. J., Colvin, G., & Sugai, G. (2003). The effects of pre-correction and active

supervision on the recess behavior of elementary school students. *School Psychology Quarterly*.

Lewis, T. J., & Sugai, G. (1993). Teaching communicative alternatives to socially withdrawn behavior: An investigation in maintaining treatment effects. *Journal of Behavioral Education, 3,* 61-75.

Lewis, T.J., & Sugai, G. (1996). Descriptive and experimental analysis of teacher and peer attention and the use of assessment-based intervention to improve pro-social behavior. *Journal of Behavioral Education, 6*, 7-24.

Lewis, T. J., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive school-wide management. *Focus on Exceptional Children, 31*(6), 1-24.

Lewis, T. J., Sugai, G., & Colvin, G. (1998). Reducing problem behavior through a school-wide system of effective behavioral support: Investigation of a school-wide social skills training program and contextual interventions. *School Psychology Review, 27*, 446-459.

Lewis-Palmer, T. (1998). *Using data for decision-making at the school and district levels*. OR-PBS Conference, University of Oregon, March 14.

Lewis-Palmer, T., Horner, R.H., Sugai, G., Eber, L., & Phillips, D. (2002). *Illinois positive behavior interventions and support project: 2001-2002 progress report*. University of Oregon: OSEP Center on Positive Behavior Support.

Lewis-Palmer, T., Sugai, G., & Larson, S. (1999). Using data to guide decisions about program implementation and effectiveness. *Effective School Practices, 17*(4), 47-53.

Liaupsin, C.J., Jolivette, K., & Scott, T.M. (2004). School-wide systems of support: Maximizing student success in schools. In R.B. Rutherford, M.M. Quinn, & R. Sathur (Eds.), *Handbook of research in emotional and behavioral disorders* (pp.487-501). New York, NY: Guilford Press.

Linn, R. L. (2000). Assessments and accountability. *Educational Researcher, 29,* 4–16.

Linney, J. A., & Wandersman, A. (1991). Prevention Plus 111 *Assessing alcohol and other drug prevention programs at the school and community level: A four step guide to useful program assessment*. Office for Substance Abuse Prevention, Rockville, MD.

Lipsey, M. W. (1992). Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In T. D. Cook, H. Cooper, D. S. Cordray, H. Hartman, L. V. Hedges, R. V. Light, T. A., et al. (Eds.), *Meta-analysis for explanation*. Beverly Hills, CA: Sage.

Lipsey, M., & Pollard, J. (1989). Driving toward theory in program evaluation: More models to choose from. *Evaluation and Program Planning, 12*, 317-328.

Lohrman-O'Rourke, S., Knoster, T., & Llewellyn, G. (1999). Screening for understanding: An initial line of inquiry for school-based settings. *Journal of Positive Behavioral Interventions, 1*(1), 35-42.

Lohrmann-O-Rourke, S., Knoster, T., Sabatine, K., Smith, D., Horvath, B., & Llewellyn, G. (2000). School-wide application of positive behavior support in the Bangor area school district. *Journal of Positive Behavioral Support, 5*(4), 121-128.

Luiselli, J. K., & Cameron, M. J. (1998). *Antecedent control: Innovative approaches to behavioral support.* Baltimore, MD: Paul H. Brookes.

Luiselli, J. K., Putnam, R. F., & Sunderland, M. (2002). Longitudinal evaluation of behavior support intervention in a public middle school. *Journal of Positive Behavioral Interventions, 4*(3), 182-188.

Maag, J. W. (2001). Rewarded by punishment: Reflections on the disuse of positive reinforcement in education. *Exceptional Children, 67*(2), 173-186.

Maher, C. A., & Bennett, R. E. (1984). *Planning and evaluating special services.* Englewood Cliffs, NJ: Prentice-Hall.

Maher, C. A., & Kratochwill, T. R. (1980). Evaluation of special service programs: An overview. *School Psychology Monograph, 4,* 1–24.

Maher, C. A., Illback, R. J., & Zins, J. E. (Eds.). (1984). *Organizational psychology in the schools: A handbook for professionals.* Springfield, IL: Charles C Thomas.

Mayer, G. (1995). Preventing antisocial behavior in the schools. *Journal of Applied Behavior Analysis, 28*, 467-478.

McDougal, J., & Hiralall, A. (1998). *Bridging research into practice to intervene with young aggressive students in the public school setting: Evaluation of the behavior consultation team (BCT) project.* Paper presented at the Annual Convention of the National Association of School Psychologists (30th, Orlando, FL, April 14-18, 1998).

McMullen, J. (1996). Using discipline referrals to make decisions. *NASSP Bulletin*, *84*, 106-117.

McNamara, B. E. (1998). *Learning disabilities: Appropriate practices for a diverse population*. State University of New York Press, State University Plaza, Albany, NY.

Merrett, F., & Wheldall, K. (1993). How do teachers learn to manage classroom behavior? A study of teachers' opinions about their initial training with special reference to classroom behavior management. *Educational Studies, 19*, 91-105.

Merriam-Webster (2004). *Merriam-Webster's Collegiate Dictionary* (11th Edition). Merriam-

Webster, Inc. Cambridge, MA: Riverside Press.

Messick, S. (1994). *Validity of psychological assessment: validation of inferences from persons' responses and performances as scientific inquiry into score meaning.* Research Report, 94-45.

Meyer L. H., & Evans, I. M. (1989). *Nonaversive intervention for behavior problems*. Baltimore, MD: Paul Brookes Publishing Co.

Moncher, F. J., & Prinz, R. J. (1991). Treatment fidelity in outcome studies. *Clinical Psychology Review, 11,* 247–266.

Nakasato, J. (2000). Data-based decision making in Hawaii's behavior support effort. *Journal of Positive Behavior Interventions, 2*(4), 247-251.

Nelson, J. R., Martella, R., & Galand, B. (1998). The effects of teaching school expectations and establishing a consistent consequence on formal office disciplinary actions. *Journal of Emotional and Behavioral Disorders, 6*, 153-161.

Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin, 113*, 99–128.

Oetting, E. R., Donnermeyer, J. F., Plested, B. A., & Edwards, R. W. (1995). Assessing community readiness for prevention. *International Journal of the Addictions, 30,* 659–683.

Ohio Department of Education, (2003). Ohio training resources for positive behavior support toolkit, (http://www.ode.state.oh.us/).

O'Neill, R., Horner, R., Albin, R., Sprague, J., Storey, K., & Newton, J. (1997). *Functional assessment and program development for problem behavior: A practical handbook* (2nd Ed.). Pacific Grove, CA: Brooks/Cole.

O'Neill, R., Vaughn, B. J., & Dunlap, G. (1998). Comprehensive behavioral support: Assessment issues and strategies. In A.M. Wetherby, S. F. Warren, & J. Reichle (Eds.), *Transactions in prelinguistic communication: Preintentional to intentional and presymbolic to symbolic* (313-341). Baltimore, MD: Paul H. Brookes.

OSEP Center on Positive Behavioral Interventions and Support. (1999). *Applying positive behavioral support and functional behavioral assessment in schools*. [Technical Assistance Guide]. Version 1.4.4.

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*, 357–389.

Patton, M. Q. (1989). A context and boundaries for a theory-driven approach to validity. *Evaluation and Program Planning, 1*(4), 3725-377.

Patton, M. Q. (1997). Implementation evaluation: What happened in the program? *Behavioral Disorders, 16,* 299-313.

Pentz, M. A., Trebow, E. A., Hansen, W. B., MacKinnon, D. P., Dwyer, J. H., Flay, B. R., et al. (1990). Effects of program implementation on adolescent drug use behavior: The Midwestern prevention project. *Evaluation Review, 14,* 264–289.

Pruitt, R., Kelsh, B., & Sugai, G. M. (1989). *Pro-tickets: A positive school-wide behavior management program*. In 1989 Oregon Conference Monograph. Eugene, OR: University of Oregon.

Reid, D. H. (2000). Enhancing the applied utility of functional assessment. *Journal of the Association for Persons with Severe Handicaps (JASH), 25*(4), 241-44.

Repp, A. (1994). Comments on functional analysis procedures for school-based behavior problems. *Journal of Applied Behavior Analysis, 27,* 208-412.

Rogers, P. J., Petrosino, A., Huebner, T. A., & Hacsi, T. A. (2000). Program theory evaluation: Practice, promise, and problems. *New Directions for Evaluation, 87*, 5-13.

Ruef, M. B., Higgins, C., Glaeser, B., & Patnode, M. (1998). Positive behavioral support: Strategies for teachers. *Intervention in School and Clinic, 34*(1), 21-32.

Sadler, C. (2000). Implementation of effective behavior support at the district level. *Journal of Positive Behavior Interventions, 2*(4), 241-243.

Sailor, W. (1996). New structures and systems change for comprehensive positive behavioral support. In L., Koegel, R. Koegel, & G. Dunlap (Eds.), *Positive behavioral support: Including people with difficult behavior in the community* (pp. 163-206). Baltimore, MD: Paul H. Brookes.

Scheirer, M. A. (1987). Program theory and implementation theory: Implications for evaluators. In L. Bickman (Ed.), *Using program theory in evaluation* (pp. 59–76). San Francisco, CA: Jossey-Bass.

Scheirer, M. A. (1994). Designing and using process evaluation. In J. Wholey, H. P. Hatry, & K. E. Newcomer (Eds.), *Handbook of practical program evaluation* (pp. 40–67). San Francisco, CA: Jossey-Bass.

Schneider, T., Walker, H., & Sprague, J. (2000). *Safe school design: A handbook for educational leaders*. ERIC Clearinghouse on Educational Management. University Oregon, Eugene.

School Wide Information System (2000). *What is SWIS?* Retrieved from the World Wide Web

June 23, 2000: http://www.swis.org.

Schorr, L. B. (1997). *Common purpose: Strengthening families and neighborhoods to rebuild America.* New York, NY: Anchor Books.

Schwartz, B. (1989). *Psychology of learning and behavior* (3rd ed.). New York, NY: W. W. Norton & Company.

Scott, T. M., & Nelson, C. M. (1999). Using functional behavioral assessment to develop effective intervention plans: Practical classroom applications. *Journal of Positive Behavior Interventions, 1*, 242-251.

Scott, A. G., & Sechrest, L. (1989). Strength of theory and theory of strength. *Evaluation and Program Planning, 1*(4), 3229-336.

Scotti, J. R., Evans, I. M., Meyer, L. H., & Walker, P. (1991). A meta-analysis of intervention research with problem behavior: Treatment validity and standards of practice. *American Journal on Mental Retardation, 96,* 233-256.

Sidani, S. & Braden, C. J. (1991). *Evaluating nursing interventions: A theory-driven approach*. Thousand Oaks, CA: Sage Publications, Inc.

Skiba, R. J., Peterson, R. L., & Williams, T. (1997). Office referrals and suspensions: Disciplinary intervention in middle schools. *Education and Treatment of Children, 20,* 295-315.

Slaby, R. G. (1995). *Early violence prevention: Tools for teachers of young children*. National Association for the Education of Young Children, 1509 16th Street, N.W., Washington, DC, (NAEYC Catalog #325).

Snell, M. E. (1988). Curriculum and methodology for individuals with severe disabilities. *Education and Training in Mental Retardation, 12,* 302-314.

Sprague, J., Sugai, G., & Walker, H. (1998). Antisocial behavior in schools. In S. Watson & F. Gresham (Eds.), *Child behavior therapy: Ecological considerations in assessment, treatment, and evaluation* (pp. 451-474). New York, NY: Plenum Press.

Staub, D., & Peck, C. A. (1995). What are the outcomes for nondisabled students? *Educational Leadership, 52*, 36-40.

Stufflebeam, D. L., & Shinkfield, A. J. (1985). *Systematic evaluation.* Boston, MA: Kluwer-Nijhoff.

Sugai, G. (1992). The design of instruction and the proactive management of social behaviors. *Learning Disabilities Forum, 17*(2), 20-23.

Sugai, G. (1996). Providing effective behavior support to all students: Procedures and processes. *SAIL, 11*(1), 1-4.

Sugai, G. (1998). Postmodernism and emotional and behavioral disorders: Distraction or advancement. *Behavior Disorders, 23,* 171-177.

Sugai, G. (2001) University of Oregon Co-Director, OSEP Center on Positive Behavioral Interventions and Supports. Written testimony submitted April 21, (2002) to the Committee on Health, Education, Labor, and Pensions. Washington, D.C.

Sugai, G., & Horner, R. (1994). Including students with severe behavior problems in general education settings: Assumptions, challenges, and solutions. In J. Marr, G. Sugai, & G. Tindal (Eds.), *The Oregon conference monograph* (Vol. 6) (p. 102-120). Eugene, OR: University of Oregon.

Sugai, G., & Horner, R.H. (1999). Discipline and behavioral support: Practices, pitfalls, and promises. *Effective School Practices, 17*(4), 10-22.

Sugai, G., & Horner, R. H. (2001). Features of effective behavior support at the district level. *Beyond Behavior, 11*(1), 16-19.

Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy, 24*, 23-50.

Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T. J., Nelson, et al. (2000). Applying positive behavioral support and functional behavioral assessment in schools. *Journal of Positive Behavioral Interventions, 2*, 131-143.

Sugai, G., Horner, R. H., & Gresham, F. (2004). Behaviorally effective school environments. In M. R. Shinn, G. Stoner, & H. M. Walker (Eds.), *Interventions for academic and behavior problems: Preventive and remedial approaches*. National Association of School Psychologists. Silver Spring, MD.

Sugai, G., Horner, R. H., & Lewis-Palmer, T. (2001). The effective behavior support team implementation checklist (Version 2.2). *Educational Community and Supports* (August, 2002).

Sugai, G., Horner, R. H., & Sprague, J. (1999). Functional assessment-based behavior support planning: Research-to-practice-to-research. *Behavioral Disorders, 24*, 223-227.

Sugai, G., & Lewis, T. (1996). Preferred and promising practices for social skills instruction. *Focus on Exceptional Children, 29*(4), 1-16.

Sugai, G., Lewis-Palmer, T., & Hagan. S. (1998). Using functional assessments to develop behavior support plans. *Preventing School Failure, 43*(1), 6-13.

Sugai, G., Lewis-Palmer, T., & Hagan-Burke, S. (1999-2000). Overview of the functional behavioral assessment process. *Exceptionality, 8,* 149-160.

Sugai, G., Lewis-Palmer, T., Todd, A., & Horner, R.H. (2001). *School-wide evaluation tool*. Eugene: University of Oregon.

Sugai, G., & Pruitt, R. (1993). Phases, steps, and guidelines for building school-wide behavior management programs: A practitioner's handbook. *Behavior Disorders Handbook No. 1*. Behavior Disorders Program. University of Oregon. Eugene.

Sugai, G., Sprague, J. R., Horner, R. H., & Walker, H. M. (2000). Preventing school violence: The use of office discipline referrals to assess and monitor school-wide discipline interventions. *Journal of Emotional and Behavioral Disorders, 8*, 94-101.

Sugai, G., & Tindal, G. (1993). *Effective school consultation: An interactive approach*. Pacific Grove, CA: Brooks/Cole.

Sulzer-Azaroff, B., & Mayer, G. R. (1986). *Achieving educational excellence: Using behavioral strategies*. New York, NY: Holt, Rinehart & Winston.

Taylor-Greene, S. J., & Kartub, D. T. (2000). Durable implementation of school-wide behavior support: The high five program. *Journal of Positive Behavior Interventions, 2*, 233-245.

Taylor-Greene, S., Brown, D., Nelson, L., Longton, J., Gassman, T., Cohen, J., et al. (1997). School-wide behavioral support: Starting the year off right. *Journal of Behavioral Education, 7,* 99-112.

Tilly, W. D., III, Knoster, T. P., Kovaleski, J., Bambara, L., Dunlap, G., & Kincaid, D. (1998). *Functional behavioral assessment: Policy development in light of emerging research and practice*. National Association of the State Directors of Special Education: Alexandria, VA.

Todd, A. W., Horner, R. H., Sugai, G., & Sprague, J. R. (1999). Effective behavior support: Strengthening school-wide systems through a team-based approach. *Effective School Practices, 17*(4), 23-37.

Trochim, W. M. K. (1989). Pattern matching and program theory. *Evaluation and Program Planning, 1*(4), 355-366.

Umbreit, J. (1995). Functional assessment and intervention in a regular classroom setting for the disruptive behavior of a student with attention deficit hyperactivity disorder. *Behavioral Disorders, 20,* 267-278.

Vollmer, T. R., & Northup, J. (1996). Some implications of functional analysis for school psychology. *School Psychology Quarterly, 11,* 76-92.

Wacker, D., Steege, M., Northup, J., Reimers, T., Berg, W., & Sasso, G. (1990). Use of functional analysis and acceptability to assess and treat severe behavior problems: An outpatient clinic model. In A. C. Repp & N. N. Singh (Eds.) *Perspectives on the use of nonaversive and aversive interventions for persons with developmental disabilities* (pp. 349-360). Sycamore, IL: Sycamore Publishing Company.

Walker, H. M, Colvin, G., & Ramsey, E. (1995). *Antisocial behavior in public school: Strategies and best practices*. Pacific Grove, CA: Brookes/Cole.

Walker, H. M., Forness, S. R., Kauffman, J., Epstein, M. H., Gresham, F. M., Nelson, et al. (1998). Macro-social validation: Referencing outcomes in behavioral disorders to societal issues and problems. *Behavioral Disorders, 24,* 1-18.

Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J.R., Bricker, D. et al. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders, 4*, 193-256.

Wang, M. C., Haertel, G. D., & Walberg, H. (1997). Learning influences. In H. J. Walberg & G. D. Haertel (Eds.), *Psychology and educational practice* (pp. 199–211). Berkeley, CA: McCutchan.

Warger, C. (1999). *Positive behavior support and functional assessment*. ERIC/OSEP Special Project, ERIC Clearinghouse on Disabilities and Gifted Education, Council for Exceptional Children, Reston, VA.

Watson, M., Battistich, V., & Solomon, D. (1997). Enhancing students' social and ethical development in schools: An intervention program and its effects. *International Journal of Educational Research, 27,* 571–586.

Weigle, K. (1995). *The effects of functional analysis information on ratings of treatment acceptability and effectiveness*. Unpublished master's thesis, West Virginia University, Morgantown.

Weiss, C. H. (1995). Nothing as practical as a good theory: Exploring theory-based evaluation for comprehensive community initiatives for families and children. In J. P. Connell, A. C. Kubisch, L. B. Schorr & C. H. Weiss (Eds.), *New approaches to evaluating community initiatives.* New York, NY, Aspin Institute.

Weiss, C. H. (1997a). Theory-based evaluation: Past, present, and future. In D. Rog & D. Fournier (Eds.), *Progress and future directions in evaluation: perspectives on theory, practice, and methods.* San Francisco, CA, Jossey-Bass.

Weiss, C. H. (1997b). How can theory-based evaluation make greater headway? *Evaluation Review, 21*(4), 501-524.

Weissberg, R. P. (1990). Fidelity and adaptation: Combining the best of two perspectives. In P.

Tolan, C. Keys, F. Chertok, & L. Jason (Eds.), *Researching community psychology: Issues of theories and methods* (pp. 186–190). Washington, DC: American Psychological Association.

White, W. A. (1988). A meta-analysis of the effects of direct instruction in special education. *Education and Treatment of Children, 11*, 364-374.

Wolery, M. R., Bailey, D. B., Jr., & Sugai, G. M. (1988). *Effective teaching: Principles and procedures of applied behavior analysis with exceptional children*. Boston, MA: Allyn & Bacon.

Wolraich, M. L., Hannah, J. N., Pinnok, T. Y., Baumgaertel, A., Brown, J. (1996). Comparison of diagnostic criteria for attention-deficit hyperactivity disorder in a county-wide sample. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*(3), 319-324.

Worthen, B. R. (1996). "Beyond Formative and Summative Evaluation" Revisited. *Evaluation Practice, 17*(2), 119.

Wright, J. A., & Dusek, J. B. (1998). Research into practice: Compiling school base rates for disruptive behaviors from student disciplinary referral data. *School Psychology Review, 27*, 138-147.

Yeaton, W. H., & Sechrest, L. (1981). Critical dimensions in the choice and maintenance of successful treatments: Strength, integrity, and effectiveness. *Journal of Consulting and Clinical Psychology, 49,* 156–167.

Zins, J. E. (1985). Work relations management. In C. A. Maher (Ed.), *Professional self-management: Techniques for special services providers* (pp. 105–127). Baltimore, MD: Brookes.

Zins, J. E., & Curtis, M. J. (1981). Teacher preference for differing models of consultation. In M. J. Curtis & J. E. Zins (Eds.), *The theory and practice of school consultation* (pp. 184–189). Springfield, IL: Charles C Thomas.

Zins, J. E., Elias, M. J., Greenberg, M. T., & Weissberg, R. P. (2000). Promoting social and emotional competence in children. In K. M. Minke & G. C. Bear (Eds.), *Preventing school problems - promoting school success: Strategies and programs that work* (pp. 71–100). Bethesda, MD: National Association of School Psychologists.

Zins, J. E., & Ponti, C. R. (1990). Best practices in school-based consultation. In A. Thomas and J. Grimes (Eds.), *Best practices in school psychology-II* (pp. 673-694). Washington, DC: National Association of School Psychologists.

Zins, J. E., & Erchul, W. P. (2002). Best practices in school consultation. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology-IV* (Vol. 1, pp. 625–643). Bethesda, MD: National Association of School Psychologists.

APPENDIX A

UNIVERSITY OF CINCINNATI
INSTITUTIONAL REVIEW BOARD – SOCIAL AND BEHAVIORAL SCIENCES
CONFLICT OF INTEREST DISCLOSURE

Principal Investigator: Daniel P. Murdock Sr.

Study Title: SCHOOLWIDE BEHAVIORAL SUPPORT: A THEORY-BASED PROGRAM IMPLEMENTATION STUDY OF POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORT

Person completing this form (print): _____

Except for grant-funded compensation and expenses, do you, or does any member of your immediate family, intend or expect to profit financially in any manner from the results of the research undertaken in this study (including, but not limited to any patent, royalty, or licensing fees)? Yes No

If yes, please provide a detailed description of your financial intentions or expectations:
_____
_____

Do you, or does any member of your immediate family, currently have or expect to have an ownership or other financial interest in, or management position with any entity whose procedure, technique, product or software is used or tested in this study? Yes No

If yes, please provide a detailed description of your financial interest or management position: _____
_____
_____

_____
Signature **Date**

APPENDIX B

University of Cincinnati

Daniel P. Murdock Sr.
Doctoral Candidate
University of Cincinnati
Special Education Program
Home (937) ###-####
Office (937) ###-####

Consent to Participate in a Research Study

Introduction:

Before agreeing to participate in this research study, it is important that the following explanation of the proposed procedures be read and understood. It describes the purpose, procedures, risks and benefits of the study. It also describes the right to withdraw from the study at any time. It is important to understand that no guarantee or assurance can be made as to the results.

Purpose of the Study:

The purpose of this study is to evaluate the implementation of the Positive Behavioral Interventions and Support program put into operation by the *xxxxxxxxxx* City School District via a program evaluation study. "I, _____ give permission for myself to participate in a research study in which the researcher will interview randomly selected personnel and survey all building staff members, which includes myself."

Duration:

All school stakeholders will be provided several questionnaires/checklists to complete during the duration of the study, requiring 20 minutes or less each to complete. Population representative participants will be randomly selected to participate in one individual semi-structured interview and one focus group session. The duration of these sessions are anticipated to last 30-45 minutes and 60-90 minutes respectively.

Procedure:

During interview sessions, you will be audiotaped for a 30-45 minute interview session as a participant at this level in the research study. The researcher will later transcribe and analyze the recorded sessions, in which you will have the opportunity to view the final reports afterward at your convenience. In addition, you may be asked to comment on responses provided during the interview and focus group sessions, or relate thoughts from the previous interview. You will be participating in this study for one 30-45 minute interview and one 60-90 minute focus group session. Each session will be conducted in a secluded room on the research site where questions and responses will be audiotaped. The taped recordings and written material will be kept on a password-protected computer database during the study and destroyed following final data analysis. In addition, the results of the study will be made available to the school/site administration, in which you will be permitted to review the final report and disallow any content that you may deem potentially harmful. Additional data will be collected for analysis that includes past and current district behavioral records. All culminating findings, as well as

recommendations for the benefit of the present program's implementation effectiveness will be summed up in written form and the analysis provided to all study participants.

Potential Risks and Benefits:

It is not anticipated that any discomfort may result from discussing your thoughts and feelings regarding the implementation evaluation of the Positive Behavioral Interventions and Support program put into practice at the *xxxxxxxxxx* City School District. This, however, may be deemed as a potential risk involved with your participation in the study. Accordingly, should any discomfort or undue embarrassments occur, you have the right to determine whether you wish to continue to participate. Your participation in this study, or the decision to withdraw your participation, will in no way affect the professional relationship with the researcher, nor your present employment position. At any time during the study, you have the right to discuss any discomfort with the principal researcher - Daniel P. Murdock Sr. (###-####), the researcher's adviser - Dr. Joseph Zins, Ed.D. (###-####), or the research site administrator – Connie Snyder, regarding the study. You will receive no direct benefit from your participation in this study; however, your participation will assist building stakeholders and the researcher in obtaining data for the study. The study intends to provide insight to the present progress of the PBS program implementation in the *xxxxxxxxxx* City Schools, as well as offer insight on plausible adaptations and modifications for increasing the program's effectiveness.

Alternatives:

In order to acquire a comprehensive appraisal of the implementation of *xxxxxxxxxx* City School's PBS program, it would be advantageous for each study participant to complete provided questionnaires candidly and in their entirety. You may choose to not participate in this study by simply not completing the questionnaires provided. If so chosen, it would be greatly appreciated if you would simply return the forms with the phrase CHOOSE NOT TO PARTICIPATE written across the top of the first page of each questionnaire.

Rights of the Participants:

Participation in this study is voluntary and you may refuse to participate in the study without penalty. If you choose to participate in the study, you may choose to withdraw your participation from the study at anytime with a verbal or written request for termination. In addition, you have the right to contact the researcher or the researcher's advisor should any questions arise concerning this investigation. The researcher is an outside investigator who does not serve in the capacity of a supervisor/administrator to any participants. Your rights as a participant acknowledge that you have voluntarily agreed to participate in this study and that you have not been wittingly or unwittingly coerced to participate in this research endeavor. Your participation is voluntary and you may refuse to participate, or may discontinue participation AT ANY TIME, without penalty or loss of benefits to which you are otherwise entitled.

Confidentiality:

The information obtained from the audio-recorded interviews and the group focus session is considered data for the study and will be filed and password-protected by the researcher. In order to provide confidentiality, your name and the names of all other participants will be changed or removed from all written materials including field notes, interview transcriptions, and final written reports. No names will be used in reporting study findings; however, excerpts of the

interview maybe used to support study findings. The researcher will perform the transcriptions of the recorded sessions. Tape recordings will be kept in a locked file during the study and destroyed at its conclusion. Only the researcher will have access to this file.

Consent Statement:

By signing below, you, the undersigned, understand the above explanation and give your consent to voluntarily participate in this study, which investigates the evaluation of the implementation of the Positive Behavioral Interventions and Support program of the *xxxxxxxxxx* City School District. Nothing in this consent form waives any legal right you may have nor does it release the investigator, the sponsor, the institution, or its agents from liability for negligence. **I HAVE READ THE INFORMATION PROVIDED ABOVE. I VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY. I WILL RECEIVE A COPY OF THIS CONSENT FORM FOR MY INFORMATION.**

_____	_____
Signature of Participant	**Date**
_____	_____
Signature of Investigator	**Date**

APPENDIX C

Research Cover Letter

Dear Teacher, Staff or Community Member.

The purpose of this letter is to inform you of a research study to be conducted in your building by a researcher from the University of Cincinnati on the program implementation of the school-wide application of Positive Behavioral Interventions and Support. As you are aware, PBS is a well-researched, person-centered approach to increasing pro-social behaviors and decreasing disruptive or challenging behaviors in individuals. During the next several months, I will be working in collaboration with parents, teachers, administrators, and other personnel from your school in assessing supports for students at school in place and those in potential need to further reduce the problems associated with disruptive or challenging behavior.

The study will entail a systematic investigation, including research development, testing and evaluation, designed to assess and contribute to generalizable knowledge of building stakeholders. Part of this study will involve examining the perceptions of individuals involved with the school by conducting research and obtaining data through interaction with the respective personnel and review of collected data. Interactions and correspondences between the investigator and staff will include communication or interpersonal contact and written questionnaires. In addition, as part of this assessment, selected personnel will be audiotaped during semi-structured interviews and a group focus discussion. Names or other identifying information of individuals will not be revealed, and all audio recordings performed will be destroyed after completion of the study.

Your assistance with this study by completing periodic questionnaires regarding your perceptions of various aspects of the school environment, such as student behavior at school and school safety will be greatly appreciated. The purpose of these surveys disseminated and interviews conducted will be to develop a program evaluation of the implementation and outcomes of positive behavioral supports (PBS) in your building. The program evaluation will be reviewed by staff members for accuracy once it has been developed. It will be challenging to ensure anonymity within the building. For this reason, I will not be able to guarantee that no comments will be identified with participants, among staff members.

While there are no anticipated risks for participation in the study, your participation will provide benefits to the school in the form of greater awareness of changes in the school community and environment. Participation is completely voluntary, and you will not be penalized in any way should you refuse to participate. All results evidenced from the study, including program recommendations, will be shared with respective building stakeholders.

If you would like more information on the global purpose or details of this study, please feel free to contact me at your convenience.

Sincerely,

Daniel P. Murdock Sr.

Daniel P. Murdock Sr.
Doctoral Candidate
University of Cincinnati
PO Box 210002
Cincinnati, Ohio 45221-0002
(937) ###-####

APPENDIX D

EBS School-Wide Behavioral Support Survey

INDIVIDUAL STUDENT SYSTEMS

Current Status			Feature	Priority for Improvement		
In Place	**Partial in Place**	Not in Place	**Individual student systems** are defined as specific supports for students who engage in chronic problem behaviors (1%-7% of enrollment)	High	Med	Low
			1. Assessments are conducted regularly to identify students with chronic problem behaviors.			
			2. A simple process exists for teachers to request assistance.			
			3. A behavior support team responds promptly (within 2 working days) to students who present chronic problem behaviors.			
			4. Behavioral support team includes an individual skilled at conducting functional behavioral assessment.			
			5. Local resources are used to conduct functional assessment-based behavior support planning (~10 hrs/week/student).			
			6. Significant family &/or community members are involved when appropriate & possible.			
			7. School includes formal opportunities for families to receive training on behavioral support/positive parenting strategies.			
			8. Behavior is monitored & feedback provided regularly to the behavior support team & relevant staff.			

Name of School _____ Date _____

SCHOOL-WIDE SYSTEMS

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place	**School-wide** is defined as involving all students, all staff, & all settings.	High	Med	Low
			1. A small number (e.g. 3-5) of positively & clearly stated student expectations or rules are defined.			
			2. Expected student behaviors are taught directly.			
			3. Expected student behaviors are rewarded regularly.			
			4. Problem behaviors (failure to meet expected student behaviors) are defined clearly.			
			5. Consequences for problem behaviors are defined clearly.			
			6. Distinctions between office v. classroom managed problem behaviors are clear.			
			7. Options exist to allow classroom instruction to continue when problem behavior occurs.			
			8.Procedures are in place to address emergency/dangerous situations.			
			9. A team exists for behavior support planning & problem solving.			
			10. School administrator is an active participant on the behavior support team.			
			11. Data on problem behavior patterns are collected and summarized within an on-going system.			
			12. Patterns of student problem behavior are reported to teams and faculty for active decision-making on a regular basis (e.g. monthly).			
			13. School has formal strategies for informing families about expected student behaviors at school.			
			14. Booster training activities for students are developed, modified, & conducted based on school data.			
			15. School-wide behavior support team has a budget for (a) teaching students, (b) on-going rewards, and (c) annual staff planning.			
			16. All staff are involved directly and/or indirectly in school-wide interventions.			
			17. The school team has access to on-going training and support from district personnel.			
			18. The school is required by the district to report on the social climate, discipline level or student behavior at least annually.			

NONCLASSROOM SETTING SYSTEMS

Current Status			Feature	Priority for		
In Place	Partial in Place	Not in Place	**Non-classroom settings** are defined as particular times or places where supervision is emphasized (e.g., hallways, cafeteria, playground, bus).	High	Med	Low
			1. School-wide expected student behaviors apply to non-classroom settings.			
			2. School-wide expected student behaviors are taught in non-classroom settings.			
			3. Supervisors actively supervise (move, scan, & interact) students in non-classroom settings.			
			4. Rewards exist for meeting expected student behaviors in non-classroom settings.			
			5. Physical/architectural features are modified to limit (a) unsupervised settings, (b) unclear traffic patterns, and (c) inappropriate access to & exit from school grounds.			
			6. Scheduling of student movement ensures appropriate numbers of students in non-classroom spaces.			
			7. Staff receives regular opportunities for developing and improving active supervision skills.			
			8. Status of student behavior and management practices are evaluated quarterly from data.			
			9. All staff are involved directly or indirectly in management of non-classroom settings.			

CLASSROOM SYSTEMS

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place	**Classroom settings** are defined as instructional settings in which teacher(s) supervise & teach groups of students.	High	Med	Low
			1. Expected student behavior & routines in classrooms are stated positively & defined clearly.			
			2. Problem behaviors are defined clearly.			
			3. Expected student behavior & routines in classrooms are taught directly.			
			4. Expected student behaviors are acknowledged regularly (positively reinforced) (>4 positives to 1 negative).			
			5. Problem behaviors receive consistent consequences.			
			6. Procedures for expected & problem behaviors are consistent with school-wide procedures.			
			7. Classroom-based options exist to allow classroom instruction to continue when problem behavior occurs.			
			8. Instruction & curriculum materials are matched to student ability (math, reading, language).			
			9. Students experience high rates of academic success ($\geq$ 75% correct).			
			10.Teachers have regular opportunities for access to assistance & recommendations (observation, instruction, & coaching).			
			11. Transitions between instructional & non-instructional activities are efficient & orderly.			

EBS Survey Summary

Use the EBS Survey Tally page and the EBS Survey Summary Graph to develop an accurate summary & determine initial focus area priorities

System area steps to follow:	Overall Perception			
	School-wide	**Non-classroom**	**Classroom**	**Individual Student**
1. Use *EBS Survey Summary Graph* to rate overall perspective of EBS implementation & circle High, Med. or Low	High Med Low	High Med Low	High Med Low	High Med Low
2. Using *EBS Survey Tally Pages*, list three major strengths	a. b. c.	a. b. c.	a. b. c.	a. b. c.
3. Using the EBS Survey Tally pages, list three major areas in need of development. 4. For each system, circle one priority area for focusing development activities	a b. c.	a. b c	a. b. c.	Targeted group or Individual interventions a. b. c.
5. Circle or define activities for this/next year's focus to support area selected for development	a. Organize a team b. Define/teach school rules c. Define consequence systems for appropriate & inappropriate behavior d. Define a measurement system linked to school improvement goal e. Establish communication cycles with other school teams f. Develop implementation plan	a. Define/teach routines b. Supervisor booster training & feedback sessions c. Data management d. Maintain team & communication cycle with other school teams e. Develop implementation plan	a. Define/teach routines/ link with school wide rules b. Classroom staff boosters & feedback sessions for creating effective strategies/materials c. Data management d. Maintain team & communication cycle with other school teams e. Develop implementation plan	a. Process for referral & support plan design, implementation & monitoring b. Plan to develop & use FBA to support skills c. Data management d. Maintain team & communication cycle with other school teams e. Develop implementation plan
6. Specify system(s) to: sustain (S) & develop (D).				
7. Use the EBS Annual Action Planning form for determining management, design & implementation activities in the selected focus areas.				

APPENDIX E

Strategies to Facilitate Effective Program Delivery

Recommendations to Practitioners and School Personnel

Current Status - Date (___/___/___)

Pre-Adoption Phase

Involve key stakeholders in the decision making process *(e.g., school staff, parents, students, and members of the community)*. In addition, work collaboratively with researchers to plan and evaluate programs.

Poor ***Fair*** ***Good*** ***Excellent***

_____

_____

_____

Inform all individuals involved in program implementation, including those charged with decision-making authority. Ensure that key stakeholders have sufficient background knowledge about the program and the program theory to make informed decisions.

Poor ***Fair*** ***Good*** ***Excellent***

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Assess candidate programs for their fit to the existing need, available resources, and organizational capacity within the school community.

Poor ***Fair*** ***Good*** ***Excellent***

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Examine the match between program goals and the school's or district's academic discipline policies, practices, and philosophy.

Poor ***Fair*** ***Good*** ***Excellent***

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Allocate sufficient resources to sustain the program with fidelity**.**

Poor ***Fair*** ***Good*** ***Excellent***

Identify a project coordinator whose primary role is to ensure the successful implementation and evaluation of the program.

Poor ***Fair*** ***Good*** ***Excellent***

Ensure that implementers receive training that enables them to be both knowledgeable and confident in their ability to implement the program effectively.

Poor ***Fair*** ***Good*** ***Excellent***

Establish a supportive, problem-solving procedure that promotes discussion and resolution of difficulties related to the program implementation.

Poor ***Fair*** ***Good*** ***Excellent***

Consult with program developers to identify the critical inviolable elements of a program as well as those components that are appropriate for adaptation to fit local needs and resources.

Poor ***Fair*** ***Good*** ***Excellent***

Create a school atmosphere conducive to prevention efforts and social and emotional learning (SEL) by integrating training into staff development opportunities.

Poor ***Fair*** ***Good*** ***Excellent***

Delivery Phase

Assess implementers' skills and satisfaction on an ongoing basis.

Poor ***Fair*** ***Good*** ***Excellent***

Provide emotional and practical support to program implementers. Find ways to address factors that affect implementers' ability to conduct the program *(e.g., physical space, time or scheduling constraints, competing programs or requirements, resource materials, and preparation time)*. This approach may involve modifying the curriculum, changing funding allocation, hiring additional staff, and providing release time for implementers. Full administrative support is critical for the success of these activities.

Poor ***Fair*** ***Good*** ***Excellent***

Maintain a positive school atmosphere that endorses open communication, exchange of ideas, and professional growth.

Poor ***Fair*** ***Good*** ***Excellent***

Evaluate the intervention and the implementation system with measures based on a comprehensive, theoretically-based program model.

Poor ***Fair*** ***Good*** ***Excellent***

Establish nonevaluative methods to monitor implementation quality (e.g., anonymous feedback). Implementers will be more open to feedback and more likely to engage in the intervention if ratings of implementation quality are not related to job performance ratings.

Poor ***Fair*** ***Good*** ***Excellent***

_____

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Bring family members into the process of school-wide behavior support. Inform parents of school-wide assessments and the goals of the preventive intervention. Involve parents in decision-making and program activities wherever possible. Provide parents with information, activities, or instructions to enable them to support the skills their children are learning in school.

Poor ***Fair*** ***Good*** ***Excellent***

_____

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_____

Post-Delivery Phase

Use implementation information to make decisions about the program and about ways to improve its overall quality.

Poor ***Fair*** ***Good*** ***Excellent***

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Integrate the program into the existing school structure *(e.g., incorporate program discussions into school meetings and link the preventative intervention with other school programs)*.

Poor ***Fair*** ***Good*** ***Excellent***

_____

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_____

Institutionalize the program. Carry out plans to make it a permanent part of the school's curriculum, including the requirement that program lessons and activities be reflected in teacher lesson plans.

Poor Fair Good Excellent

Use the program's behavioral support training skills as part of staff development.

Poor Fair Good Excellent

Have a realistic timeline for long-term implementation; be equally realistic about when to expect to see long-term outcomes. Typically, new innovations require 18 months to 3 years *(depending on the complexity of the program)* for users to understand a program, adapt it to meet their own needs, and have it become a permanent part of the institution.

Poor Fair Good Excellent

Develop a broad range of dissemination strategies to inform the community about the program and its findings, such as one-page summaries, executive summaries for system leaders, or articles in the local newspaper.

Poor Fair Good Excellent

Provide feedback to program developers on the intervention, the implementation system, and the factors that affected implementation quality.

Poor Fair Good Excellent

Protocol content abstracted with permission from: Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2004). The study of implementation in school-based preventive interventions. *Theory, Research, and Practice*.

APPENDIX F

Planned Intervention Checklist

Planned Intervention

Current Status - Date (___/___/___)

Program Model

Structure	*Not in Place*	*Somewhat in Place*	*Satisfactorily in Place*	*In Place*
Content	*Not in Place*	*Somewhat in Place*	*Satisfactorily in Place*	*In Place*
Timing	*Not in Place*	*Somewhat in Place*	*Satisfactorily in Place*	*In Place*
Dosage	*Not in Place*	*Somewhat in Place*	*Satisfactorily in Place*	*In Place*
Nature of Intervention	*Not in Place*	*Somewhat in Place*	*Satisfactorily in Place*	*In Place*

Quality of Delivery

Affective Nature of Degree of Engagement	*Not in Place*	*Somewhat in Place*	*Satisfactorily in Place*	*In Place*

Effective Use of Implementation Techniques *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Generalization of Skills *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Target Audience

Actual program Recipients *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Participant Responsiveness

Perceptions *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Skills *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Knowledge *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Beliefs *(e.g. efficacy)* *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Protocol content abstracted with permission from: Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2004). The study of implementation in school-based preventive interventions. *Theory, Research, and Practice*.

APPENDIX G

Planned Implementation Support Checklist

Planned Implementation Support

Current Status - Date (___/___/___)

Pre-Planning

Capacity *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Awareness *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Commitment/Engagement *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Incentive for Change *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

History of Prior Program implementation *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

_____

Quality of Materials

Design of Program Materials *Not in Place* *Somewhat in Place* *Satisfactorily in Place* *In Place*

_____

_____

Format of Program Materials	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***

Technical Support Model

Structure of Training and Supervision	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Content of Training and Supervision	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Timing of Training and Supervision	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Implementation Monitoring System	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***

Quality of Technical Support

Quality of Delivery	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Quality of the Working Relationship	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***

Trainer Characteristics	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***

Implementer Readiness

Perceptions	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Skills	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Knowledge	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***
Beliefs (e.g. efficacy)	***Not in Place***	***Somewhat in Place***	***Satisfactorily in Place***	***In Place***

Protocol content abstracted with permission from: Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2004). The study of implementation in school-based preventive interventions. *Theory, Research, and Practice*.

APPENDIX H

Observation Program Implementation Checkpoints
Components Necessary for Program Implementation

- Preconditions for operation
    - Human resources
        - Number, type, and qualifications

_____
_____

    - Informational resources
        - Policies and procedures
            - Criteria for selecting program clients
            - Evaluation plan

_____
_____

    - Technological resources
        - Materials
        - Equipment

_____
_____

    - Financial resources
        - Developmental budget
        - Operational budget

_____
_____

    - Physical resources
        - Facilities
            - Room
            - Buildings
            - Sites

_____
_____

- Nature of methods and activities

_____
_____

- Roles, responsibilities, and relationships of staff

_____
_____

- Sequence and timing of activities

_____
_____

Protocol content abstracted with permission from: Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2004). The study of implementation in school-based preventive interventions. *Theory, Research, and Practice*.

APPENDIX I

PBS Implementation and Planning Self-Assessment

(BLUE PRINT)

Date _____

Members of Team Completing Self-Assessment

_____

_____

_____

PBS Leadership Team Self-Assessment and Planning Tool

FEATURE		IN PLACE STATUS		
		Yes	**Partial**	**No**
Leadership Team	1. Team is developed with representation from appropriate range of stakeholders (special education, regular education, families, mental health, etc).			
	2. Team determines how many schools are to be involved in the effort.			
	3. Team completes self-assessment.			
	4. Team completes a 3-5 year prevention-based action plan.			
	5. Team defines regular meeting schedule & meeting process (agenda, minutes, etc).			
Coordination	6. Coordinator(s) is identified who has adequate FTE to manage day-to-day operations.			
Funding	7. Funding sources to cover activities for at least three years can be identified.			
Visibility	8. Dissemination strategies are identified & implemented to ensure that stakeholders are kept aware of activities & accomplishments (e.g., website, newsletter, conferences, TV).			
Political Support	9. Student social behavior is one of the top five goals for the political unit (state, district, etc).			
	10. Leadership team reports to the political unit at least annually on the activities & outcomes related to student behavior goal.			
	11. PBS policy statement developed & endorsed.			
	12. Participation & support by administrator from political unit.			
Training Capacity	13. Leadership team has established trainers to build & sustain school-wide PBS practices.			

Coaching Capacity	14. Leadership team has developed a coaching network that builds & sustains school-wide PBS			
	15. A coach is available to meet at least monthly with each emerging school team (emerging teams are teams that have not met the implementation criteria), and at least quarterly with established teams.			
Demonstrations	16. At least 10 schools have adopted school-wide PBS, & can be used as local demonstrations of process & outcomes.			
Evaluation	17. Leadership has developed evaluation process for assessing (a) extent to which teams are using school-wide PBS (b) impact of school-wide PBS on student outcomes, & (c) extent to which the leadership team's action plan is implemented.			
	18. School-based information systems (e.g., data collection tools & evaluation processes) are in place.			
	19. At least quarterly dissemination, celebration & acknowledgement of outcomes & accomplishments			

Leadership Team Action Planning

Activity	Activity Task Analysis	Who	When
Leadership Team • Representative • Defined range of influence • Self-assessment • Prevention action plan • Regular meeting schedule & process	a.		
	b.		
	c.		
	d.		
	e.		
Coordination • Person(s) identified to coordinate activities • FTE for coordination & management	a.		
	b.		
	c.		
	d.		
	e.		

Funding • 3 year funding support	a.		
	b.		
	c.		
	d.		
	e.		
Visibility • Dissemination system & strategies	a.		
	b.		
	c.		
	d.		
	e.		
Political Support • Student social behavior one of top five goals • Annual leadership team report to political unit • PBS policy statement • Administrative participation & support	a.		
	b.		
	c.		
	d.		
	e.		
Training Capacity • Trainers for team-training	a.		
	b.		
	c.		

	d.		
	e.		
Coaching Capacity • Coaching network • Coaches meet with teams	a.		
	b.		
	c.		
	d.		
	e.		
Demonstrations • Representative # of implementation examples	a.		
	b.		
	c.		
	d.		
	e.		
Evaluation • Evaluation process • School-based information system • Dissemination, celebrations, & acknowledgements	a.		
	b.		
	c.		
	d.		
	e.		

APPENDIX J

Barriers to Implementation Checklist

Barriers to Implementation

Current Status - Date (___/___/___)

Pre-Planning

Lack of Awareness	***Poor***	***Fair***	***Good***	***Excellent***
Lack of Buy-In	***Poor***	***Fair***	***Good***	***Excellent***
Absence of Incentive to Change	***Poor***	***Fair***	***Good***	***Excellent***
History of Implementation	***Poor***	***Fair***	***Good***	***Excellent***
Implementation Support System Insufficient Pre-Planning	***Poor***	***Fair***	***Good***	***Excellent***
Inadequate Provision of Training *(i.e., Implementers are unprepared)*	***Poor***	***Fair***	***Good***	***Excellent***

Insufficient Ongoing Supervision for Implementers *Poor* *Fair* *Good* *Excellent*

_____

_____

_____

Poor Communication Between Outside Training System and Implementers *Poor* *Fair* *Good* *Excellent*

_____

_____

_____

No System in Place for Addressing Ongoing Needs of Implementers or Problems Encountered *Poor* *Fair* *Good* *Excellent*

_____

_____

_____

Implementation Environment

Principal Leadership is Inadequate *Poor* *Fair* *Good* *Excellent*

_____

_____

_____

Program is Not Integrated with Other Aspects of Schooling or Curriculum *Poor* *Fair* *Good* *Excellent*

_____

_____

_____

Implementers Are Isolated or Unsupported *Poor* *Fair* *Good* *Excellent*

_____

_____

_____

Program Does Not Receive Adequate Attention Because of Competition with Another Curriculum	***Poor***	***Fair***	***Good***	***Excellent***
Insufficient Resources Allocated *(e.g., Classroom Time, Physical Space, and Budget)*	***Poor***	***Fair***	***Good***	***Excellent***
Overall School Climate Is Poor *(e.g., Low Collegiality)*	***Poor***	***Fair***	***Good***	***Excellent***
Classroom Climate Impedes Program Implementation	***Poor***	***Fair***	***Good***	***Excellent***

Implementer Factors

Implementers Do Not Feel Prepared To Deliver the Implementation	***Poor***	***Fair***	***Good***	***Excellent***
Implementers Are Overstressed and Undersupported	***Poor***	***Fair***	***Good***	***Excellent***

Implementer's Educational Philosophy or Teaching Style is Not Consistent with the Intervention	***Poor***	***Fair***	***Good***	***Excellent***

Program Characteristics

Poor Quality of Materials	***Poor***	***Fair***	***Good***	***Excellent***

Inappropriate for Audience	***Poor***	***Fair***	***Good***	***Excellent***

Too Narrow to Address Problem	***Poor***	***Fair***	***Good***	***Excellent***

Protocol content abstracted with permission from: Greenberg, M. T., Domitrovich, C. E., Graczyk, P. A., & Zins, J. E. (2004). The study of implementation in school-based preventive interventions. *Theory, Research, and Practice*.

APPENDIX K

Individual Semi-Structured Interview Questions

Interview Questions

Administrator _____ General Education Teacher _____ Student _____

Classified Personnel _____ Related Service Provider _____ Parent _____

Community Member _____ Special Education Teacher _____ Other _____

Elementary/Middle _____ **Junior/Senior High _____**

Start-Up Activities

Status: Not Started, Moderately in Progress, In Progress, Achieved

Establish Commitment

1. Administrator's support & active involvement. _____

_____

_____

2. Faculty/Staff support (One of top 3 goals, 80% of faculty document support, 3-year timeline). _____

_____

_____

Establish & Maintain Team

3. Team established (representative). _____

_____

_____

4. Team has regular meeting schedule, effective operating procedures. _____

_____

_____

5. Audit is completed for efficient integration of team with other teams/initiatives addressing behavior support. _____

_____

_____

Self-Assessment

6. Team/faculty completes EBS self-assessment survey. _____

7. Team summarizes existing school discipline data. _____

8. Strengths, areas of immediate focus & action plan are identified. _____

Establish School-wide Expectations

9. 3-5 school-wide behavior expectations are defined. _____

10. School-wide teaching matrix developed. _____

11. Teaching plans for school-wide expectations are developed. _____

12. School-wide behavioral expectations taught directly & formally. _____

13. System in place to acknowledge/reward school-wide expectations. _____

14. Clearly defined & consistent consequences and procedures for undesirable behaviors are developed. _____

Establish Information System

15. Discipline data are gathered, summarized, & reported. _____

Build Capacity for Function-based Support

16. Personnel with behavioral expertise are identified & involved. _____

17. Plan developed to identify and establish systems for teacher support, functional assessment & support plan development & implementation. _____

On-going Activity Monitoring

18. PBS team has met at least monthly. _____

19. PBS team has given status report to faculty at least monthly. _____

20. Activities for PBS action plan implemented. _____

21. Accuracy of implementation of PBS action plan assessed. _____

22. Effectiveness of PBS action plan implementation assessed. _____

23. PBS data analyzed. _____

Action Plan for Completion of Start-Up Activities

24. **Establish Commitment**
    - Administrator
    - Top 3 goal
    - 80% of faculty
    - Three year timeline

Comments/Suggestions:

_____

_____

_____

25. **Establish Team**
    - Representative
    - Administrator
    - Effective team operating procedures
    - Audit of teams/initiatives

Comments/Suggestions:

_____

_____

_____

26. **Self-Assessment**
    - EBS survey
    - Discipline data
    - Identification of strengths, focus
    - Action Plan developed
    - Action Plan presented to faculty

Comments/Suggestions:

_____

_____

_____

27. **School-wide Expectations**
    - Define 3-5 school-wide behavioral expectations
    - Curriculum matrix
    - Teaching plans

- Teach expectations
- Define consequences for problem behavior

Comments/Suggestions:

_____

_____

_____

28. **Establish Information System**
- System for gathering useful information
- Process for summarizing information
- Process for using information for decision-making

Comments/Suggestions:

_____

_____

_____

29. **Build Capacity for Function-based Support**
- Personnel with behavioral expertise
- Time and procedures for identification, assessment, & support implementation

Comments/Suggestions:

_____

_____

_____

30. **Next Steps – Going to Scale**

Comments/Suggestions:

_____

_____

_____

APPENDIX L

Focus Group Discussion Questions

Focus Group Questions

1. Is the Building Leadership Team providing the resources, vision, and systems needed for district-wide implementation?

Share data from *PBS Leadership Team Self-Assessment and Planning Tool

_____

_____

_____

_____

2. Are both schools implementing school-wide PBS effectively?

Share data from *The PBS Planning and Implementation Self-Assessment Checklist* and the *School-wide Evaluation Tool (SET)

_____

_____

_____

_____

3. Has implementation of school-wide PBS positively affected student behavior?

Share data from *archival behavioral data review (Office Discipline Referral)

_____

_____

_____

_____

4. Has implementing school-wide PBS exhibited a decrease in student misbehavior?

Share data from the *School-wide Effective Behavior Support Survey

_____

_____

_____

_____

5. Has the implementation of school-wide PBS allow schools to develop better support for students with the most extreme needs?

Share data from the *Individual Student Systems Evaluation Tool

_____

_____

_____

_____

6. What areas need further development and training in order to enhance and make the present program more established?

_____

_____

_____

_____

7. Has the planned intervention (essential components of the theory that underlie the school-wide system of PBS) been implemented proficiently in comparison to the predetermined program goals and objectives?

_____

_____

_____

_____

8. Has the planned implementation system (staff training, coordinating intervention infrastructure) been delivered as planned?

_____

_____

_____

_____

Protocol content (questions 1, 2, 4, 5) abstracted with permission from: *Team Implementation Checklists* (2003); *Systems-wide Evaluation Tool* (2001); *PBS Leadership Team Self-Assessment and Planning Tool* (2004); *EBS Self-Assessment Survey* (2000); and *Individual Student Systems Evaluation Tool* (2001).

APPENDIX M

System-Wide Evaluation Tool: School-Wide (SET)

System-Wide Evaluation Tool: School-Wide

School _____ **Date** _____

District _____ **State** _____

Step 1: Make Initial Contact
A. Identify school contact person & give overview of SET page with the list of products needed. B. Ask when they may be able to have the products gathered. Approximate date: _____ C. Get names, phone #'s, email address & record below. **Name:** _____ **Phone:** _____ **Email:** _____ **Products to Collect** 1. _____ Discipline handbook 2. _____ School improvement plan goals 3. _____ Annual Action Plan for meeting school wide behavior support goals 4. _____ Social skills instructional materials/ implementation time line 5. _____ Behavioral incident summaries or reports (e.g., office referrals, suspensions, expulsions) 6. _____ Office discipline referral form(s) 7. _____ Other related information
Step 2: Confirm the Date to Conduct the SET
A. Confirm meeting date with the contact person for conducting an administrator interview, taking a tour of the school while conducting student & staff interviews, & for reviewing the products. Meeting date & time: _____
Step 3: Conduct the SET
A. Conduct administrator interview. B. Tour school to conduct observations of posted school rules & randomly selected staff (minimum of 10) and student (minimum of 15) interviews. C. Review products & score SET.
Step 4: Summarize and Report the Results
A. Summarize surveys & complete SET scoring. B. Update school graph. C. Meet with team to review results. Meeting date & time: _____

Scoring Guide

School _____		**Date** _____
District _____		**State** _____
Pre _____	**Post** _____	**SET data collector** _____

Feature	Evaluation Question	Data Source (Circle sources used) P= product; I= interview; O= observation		Score: 0-2
A. Expectations Defined	1. Is there documentation that staff has agreed to 5 or fewer positively stated school rules/ behavioral expectations? (0=no, 1= too many/negatively focused, 2 = yes) Rules:	Discipline handbook Instructional materials Other _____	**P**	
	2. Are the agreed upon rules & expectations publicly posted in 8 of 10 locations? (See interview & observation form for selection of locations). (0= 0-4, 1= 5-7, 2= 8-10)	Wall posters Other _____	**O**	
B. Behavioral Expectations Taught	1. Is there a documented system for teaching behavioral expectations to students on an annual basis? (0= no, 1 = states that teaching will occur, 2= yes)	Lesson plan books Instructional materials Other _____	**P**	
	2. Do 90% of the staff asked state that teaching of behavioral expectations to students has occurred this year? (0= 0-50%, 1= 51-89%, 2=90%-100%)	Interviews Other _____	**I**	
	3. Do 90% of team members asked state that the school wide program has been taught/reviewed with staff on an annual basis? (0= 0-50%, 1= 51-89%, 2=90%-100%)	Interviews Other _____	**I**	
	4. Can at least 70% of 15 or more students state 67% of the school rules? (0= 0-50%, 1= 51-69%, 2= 70-100%)	Interviews Other _____	**I**	
	5. Can 90% or more of the staff asked list 67% of the school rules? (0= 0-50%, 1= 51-89%, 2=90%-100%)	Interviews Other _____	**I**	
C. On-going System for Rewarding Behavioral Expectations	1. Is there a documented system for rewarding student behavior? (0= no, 1= states to acknowledge, but not how, 2= yes)	Instructional materials Lesson Plans; Interviews Other _____	**P**	
	2. Do 50% or more students asked indicate they have received a reward (other than verbal praise) for expected behaviors over the past two months? (0= 0-25%, 1= 26-49%, 2= 50-100%)	Interviews Other _____	**I**	
	3. Do 90% of staff asked indicate they have delivered a reward (other than verbal praise) to students for expected behavior over the past two months? (0= 0-50%, 1= 51-89%, 2= 90-100%)	Interviews Other _____	**I**	
D. System for Responding to Behavioral Violations	1. Is there a documented system for dealing with and reporting specific behavioral violations? (0= no, 1= states to document, but not how, and 2 = yes)	Discipline handbook Instructional materials Other _____	**P**	
	2. Do 90% of staff asked agree with administration on what problems are office-managed and what problems are classroom–managed? (0= 0-50%, 1= 51-89%, 2= 90-100%)	Interviews Other _____	**I**	
	3. Is the documented crisis plan for responding to extreme dangerous situations posted in 6 of 7 locations? (0= 0-3, 1= 4-5, 2= 6-7)	Walls Other _____	**O**	

	4. Do 90% of staff asked agree with administration on the procedure for handling extreme emergencies (stranger in building with a weapon)? (0= 0-50%, 1= 51-89%, 2= 90-100%)	Interviews Other _____	**O**
E. Monitoring & Decision-Making	1. Does the discipline referral form list (a) student/grade, (b) date, (c) time, (d) referring staff, (e) problem behavior, (f) location, (g) persons involved, (h) probable motivation, & (i) administrative decision? (0=0-3 items, 1= 4-6 items, 2= 7-9 items)	Referral form (Circle items present on the referral form)	**P**
	2. Can the administrator clearly define a system for collecting & summarizing discipline referrals (computer software, data entry time)? (0=no, 1= referrals are collected, 2= yes)	Interview Other _____	**I**
	3. Does the administrator report that the team provides discipline data summary reports to the staff at least three times/year? (0= no, 1= 1-2 times/yr., 2= 3 or more times/yr)	Interview Other _____	**I**
	4. Do 90% of team members asked report that discipline data is used for making decisions in designing, implementing, and revising school wide effective behavior support efforts? (0= 0-50%, 1= 51-89%, 2= 90-100%)	Interviews Other _____	**I**
F. Management	1. Does the school improvement plan list improving behavior support systems as one of the top 3 school improvement plan goals? (0= no, 1= 4th or higher, 2 = yes)	School Improvement Plan, Interview Other _____	**P** **I**
	2. Can 90% of staff asked report that there is a school wide team established to address behavior support systems in the school? (0= 0-50%, 1= 51-89%, 2= 90-100%)	Interviews Other _____	**I**
	3. Does the administrator report that team membership includes representation of all staff? (0= no, 2= yes)	Interview Other _____	**I**
	4. Can 90% of team members asked identify the team leader? (0= 0-50%, 1= 51-89%, 2= 90-100%)	Interview Other _____	**I**
	5. Is the administrator an active member of the school-wide behavior support team? (0= no, 1= yes, but not consistently, 2 = yes)	Interview Other _____	**I**
	6. Does the administrator report that team meetings occur at least monthly? (0=no team meeting, 1=less often than monthly, 2= at least monthly)	Interview Other _____	**I**
	7. Does the administrator report that the team reports progress to the staff at least four times per year? (0=no, 1= less than 4 times per year, 2= yes)	Interview Other _____	**I**
	8. Does the team have an action plan with specific goals that is less than one year old? (0=no, 2=yes)	Annual Plan, calendar Other _____	**P**
G. District-Level Support	1. Does the school budget contain an allocated amount of money for building and maintaining school-wide behavioral support? (0= no, 2= yes)	Interview Other _____	**I**
	2. Can the administrator identify an out-of-school liaison in the district or state? (0= no, 2=yes)	Interviews Other _____	**I**

Summary Scores:	**A = /4**	**B = /10**	**C = /6**	**D = /8**	**E = /8**
	F = /16	**G = /4**	**Mean = /7**		

Additional SET Questions
SET Administrator Interview Questions

Let's talk about your discipline system:

1. Do you collect and summarize office discipline referral information? Yes No
   If no, skip to #5.

2. What information do you use for collecting office disciplines referrals? (E 2)
   a. What data are collected?
   b. Who collects the data?

3. What do you do with the office discipline referral information? (E2)
   a. Who looks at the data?
   b. How often do you share it with other staff and whom do you share it with?

4. What type of problems do you expect teachers to refer to the office rather than handling in the classroom/ specific setting? (D2)

5. What is the procedure for handling extreme emergencies in the building (i.e. stranger in building with a gun/ serious fight? (D4)

Let's talk about your school rules or motto:

6. Do you have school rules or motto? Yes No
   If no, skip to # 10.

7. How many are there?

8. What are the rules/motto? (B5)

9. What are they called? (B2, B4)

10. Do you acknowledge students for doing well socially in ways that you do academically? Yes No
    If no, skip to # 12.

11. What are the social acknowledgements/ activities/ routines called (student of month, positive referral, letter home, stickers, and high 5's)? (C2, C3)

Do you have a team that addresses school wide discipline? If no, skip to # 19

12. Has the team taught/reviewed the school wide program to staff this year? (B3)
    Yes No

13. Is your school wide team representative of your school staff? (F3)
    Yes No

14. Are you on the team? (F5)
Yes No

15. How often does the team meet? (F6)

16. Do you attend team meetings consistently? (F5)
Yes No

17. Who is your team/leader? (F4)

18. Does the team provide faculty updates on activities & data summaries? (E3)
Yes No
If yes, how often?

19. Do you have an out-of-school liaison in the state or district to support you on positive behavior support systems development? (G2)
Yes No
If yes, who?

20. What are your school improvement goals? (F1)

21. Does the school budget contain an allocated amount of money for building and maintaining school wide behavioral support? (G1)
Yes No
If yes, where does the money come from? _____

Additional Inquiries

Staff Interview Questions

1) Is there a school wide team that addresses behavioral support in your building? (F2)

2) Are you on the team?

3) What are the _____ (school rules, high 5's, 3 bee's)? (B5)
(Define what the acronym means)

4) Have you taught the school rules/behavioral expectations this year? (B2)

5) Have you given out any _____ since _____? (C3)
(Rewards for appropriate behavior) (2 months ago)

6) What type of student problems do/would you refer to the office? (D2)

7) What is the procedure for dealing with a stranger/ serious fight in the building? (D4)

Core Team Member Interview Questions

1) Does your team use discipline data to make decisions? (E4)

2) Who is the team leader/facilitator? (F4)

3) Has your team taught/reviewed the school wide program with staff this year? (B3)

Student Interview Questions

1) What are the _____ (school rules, high 5's, 3 bee's)? (B4)
(Define what the acronym means)

2) Have you received a reward for doing the right things since _____? (C2)
(2 months ago)

PBS Implementation Questions

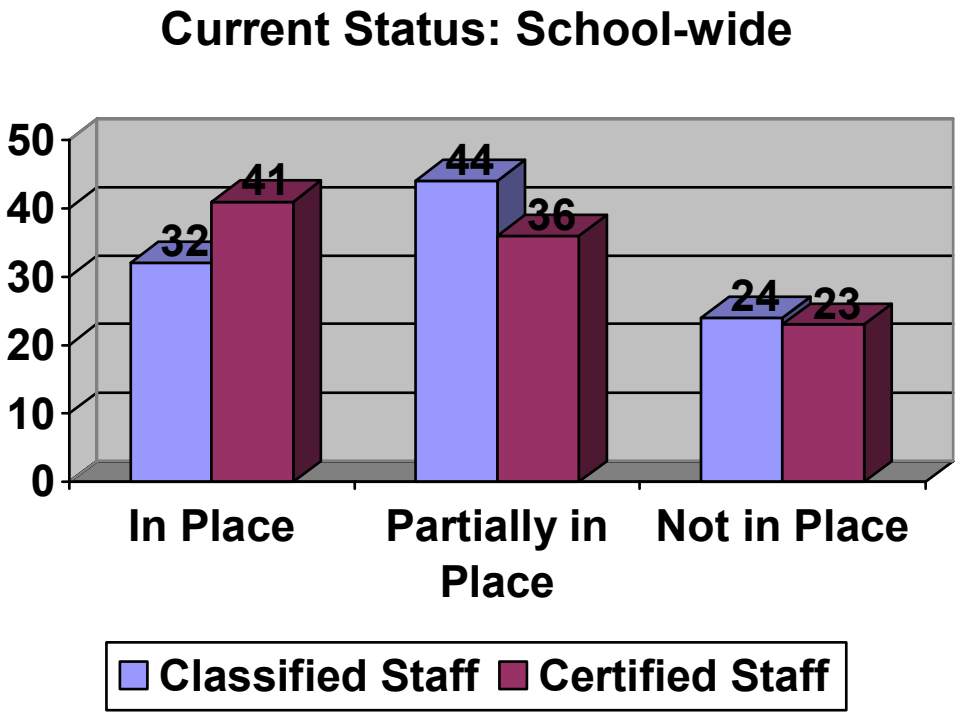
1) Is the practice **effective**?
What is the likelihood that the desired effects or outcomes will be achieved with the practice?

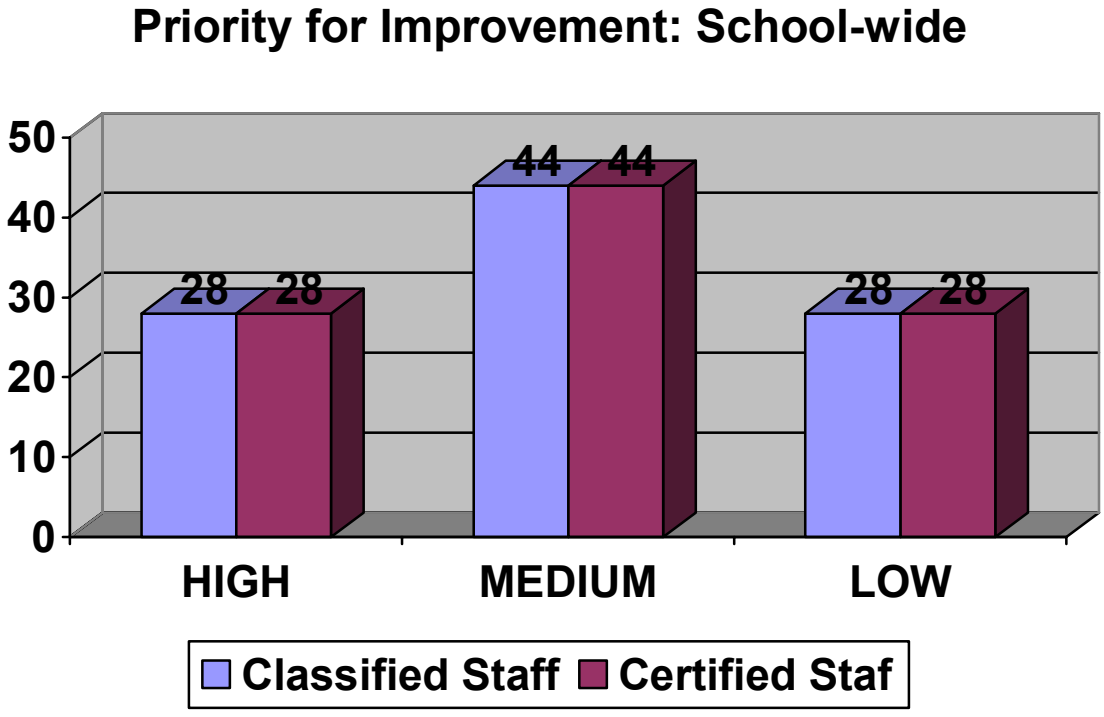
2) Is the practice **efficient**?
What are the costs/benefits of adopting and sustaining the practice?

3) Is the practice **relevant**?
Does a contextual fit exist among the practice, the individuals who will use the practice, and setting or culture in which the practice will be used?

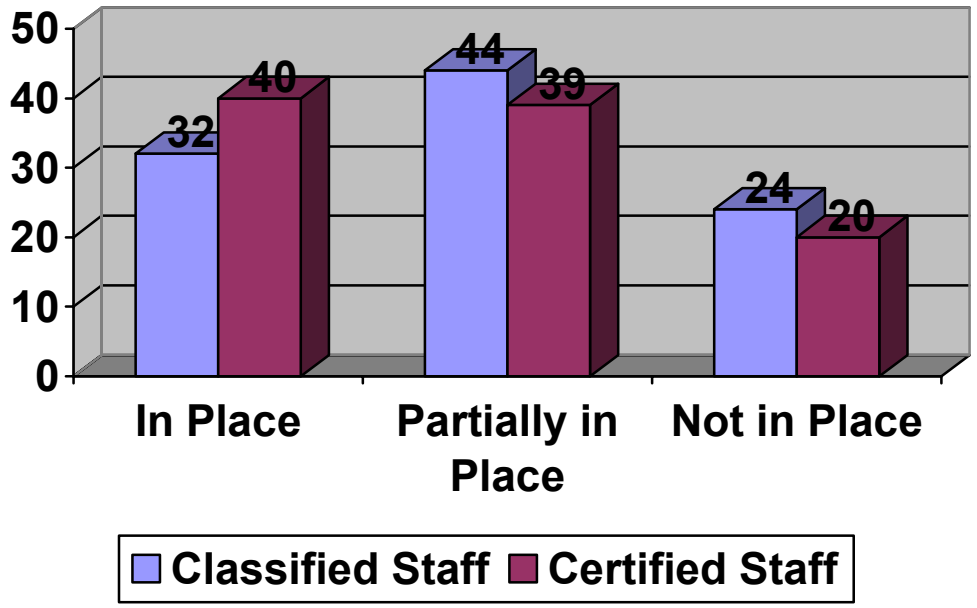
APPENDIX N

Comparative Graphs - EBS Survey Results

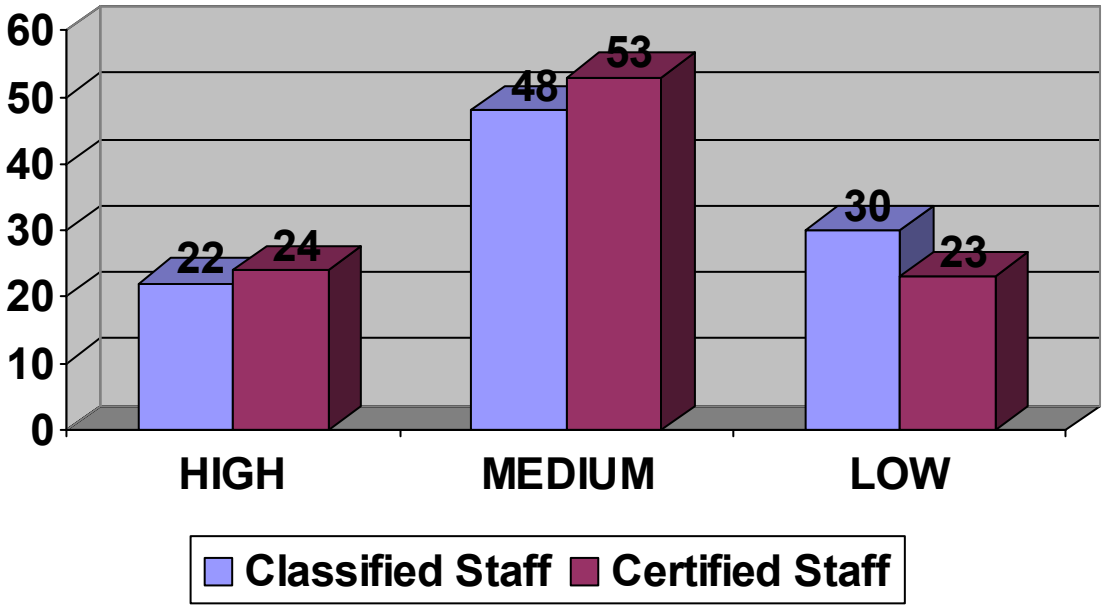




Current Status: Nonclassroom Setting

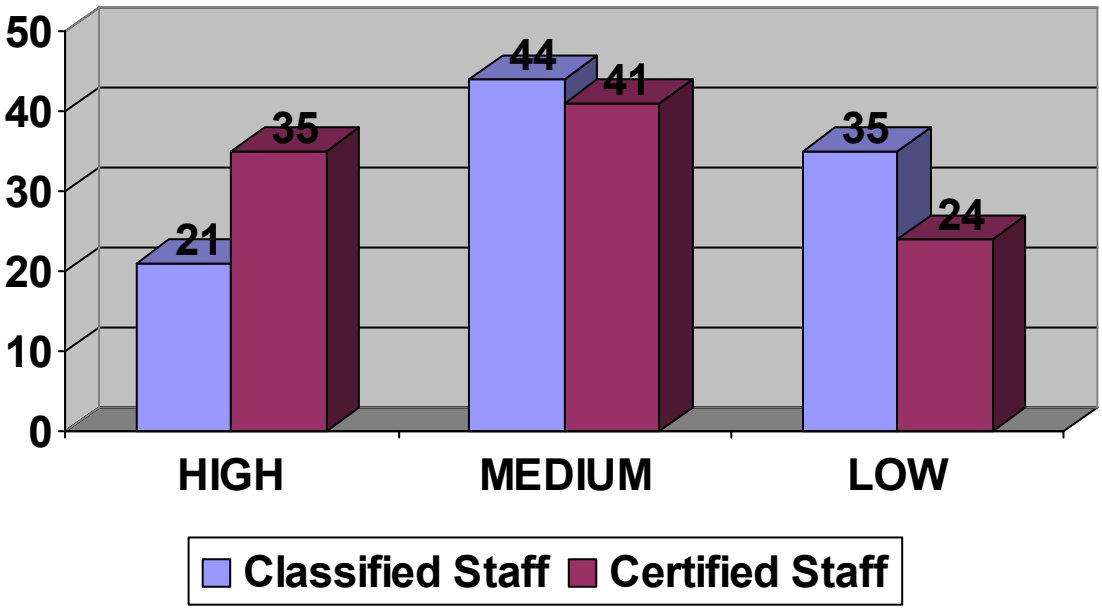


Priority for Improvement: Nonclassroom Setting

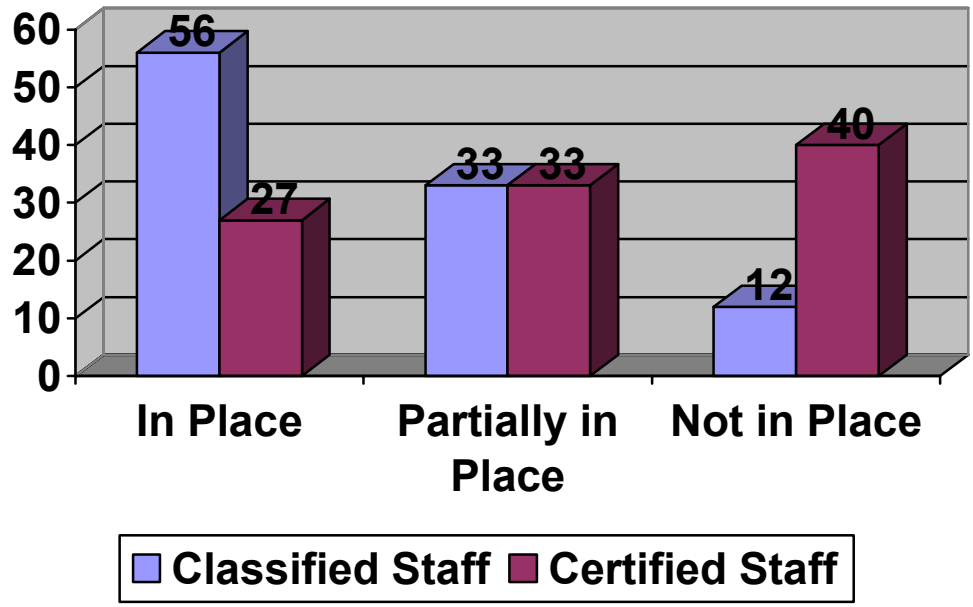


Current Status: Classroom

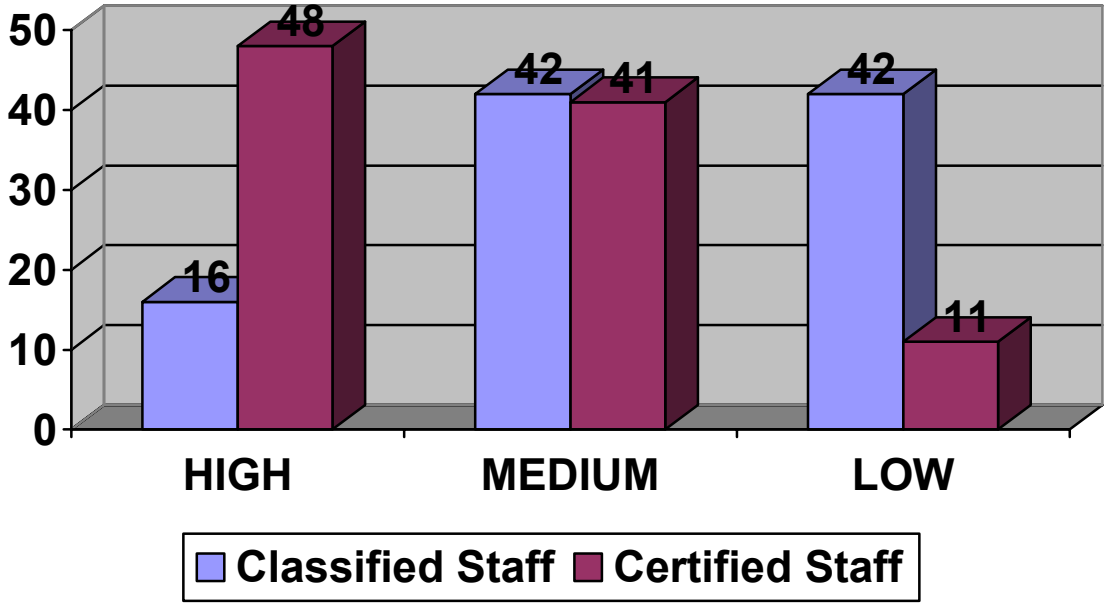
Priority for Improvement: Classroom



Current Status: Individual Student



Priority for Improvement: Individual Student



APPENDIX O
Theory-Driven Program Implementation Evaluation Phases

PHASES	DESCRIPTION
Pre-Adoption Phase (A)	• Involve key stakeholders in the decision making process (e.g., school staff, parents, students, and members of the community). In addition, work collaboratively with researchers to plan and evaluate programs. • Inform all individuals involved in program implementation, including those charged with decision-making authority. Ensure that key stakeholders have sufficient background knowledge about the program and the program theory to make informed decisions. • Assess candidate programs for their fit to the existing need, available resources, and organizational capacity within the school community. • Examine the match between program goals and the schools' or districts' academic and discipline policies, practices, and philosophy. • Allocate sufficient resources to sustain the program with fidelity. • Identify a project coordinator whose primary role is to ensure the successful implementation and evaluation of the program. • Ensure that implementers receive training that enables them to be both knowledgeable and confident in their ability to implement the program effectively. • Establish a supportive, problem-solving procedure that promotes discussion and resolution of difficulties related to the program implementation. • Consult with program developers to identify the critical inviolable elements of a program as well as those appropriate adaptations to fit local needs and resources. • Create a school atmosphere conducive to by integrating intervention training into staff development opportunities.
Delivery Phase (B)	• Assess implementers' skills and satisfaction on an ongoing basis. • Provide emotional and practical support to program implementers. Find ways to address factors that affect implementers' ability to conduct the program (e.g., physical space, time or scheduling constraints, competing programs or requirements, resource materials, and preparation time). This approach may involve modifying the curriculum, changing funding allocation, hiring additional staff, and providing release time for implementers. Full administrative support is critical for the success of these activities. • Maintain a positive school atmosphere that endorses open communication, exchange of ideas, and professional growth. • Evaluate the intervention and the implementation system with measures based on a comprehensive, theoretically based program model, such as the one outlined in this report. • Establish nonevaluative methods to monitor implementation quality (e.g., anonymous feedback). Implementers will be more open to feedback and more likely to engage in the intervention if ratings of implementation quality are not related to job performance ratings. • Bring family members into the process of behavioral intervention. Inform parents of school-wide assessments and the goals of the preventive intervention. Involve parents in decision-making and program activities whenever possible. Provide parents with information, activities, or instructions to enable them to support the skills their children are learning in school.
Post-Delivery Phase (C)	• Use implementation information to make decisions about the program and about ways to improve its overall quality. • Integrate the program into the existing school structure (e.g., incorporate program discussions into school meetings and link the preventive intervention with other school programs). • Institutionalize the program. Carry out plans to make it a permanent part of the school's curriculum, including the requirement that program lessons and activities be reflected in teacher lesson plans. • Use the program's behavioral intervention training skills as part of staff development. • Have a realistic timeline for long-term implementation; be equally realistic about when to expect to see long-term outcomes. Typically, new innovations require 18 months to 3 years (depending on the complexity of the program) for users to understand a program, adapt it to meet their own needs, and have it become a permanent part of the institution (Hord, et al. 1987). • Develop a broad range of dissemination strategies to inform the community about the program and its findings, such as one-page summaries, executive summaries for system leaders, or articles in the local newspaper. • Provide feedback to program developers on the intervention, the implementation system, and the factors that affected implementation quality.

APPENDIX P

Relationship of SET Features and Questions to EBS Database

SET Feature	EBS Question	Database Column
A. Expectations Defined *SET Mean (25%)*	1. Is there documentation that staff has agreed to 5 or fewer positively stated school rules/ behavioral expectations?	*Rules Defined*
	2. Are the agreed upon rules & expectations publicly posted in 8 of 10 locations?	*Rules Posted*
B. Behavioral Expectations Taught *SET Mean (40%)*	1. Is there a documented system for teaching behavioral expectations to students on an annual annual basis?	*Rules Instruction*
	2. Do 90% of the staff asked state that teaching of behavioral expectations to students has occurred this year?	*Staff Perception*
	3. Do 90% of team members asked state that the school-wide program has been taught/reviewed with staff on an annual basis?	*Team Perception*
	4. Can at least 70% of 15 or more students' state 67% of the school rules?	*Rules Known Students*
	5. Can 90% or more of the staff asked list 67% of the school rules?	*Rules Known Staff*
C. On-going System for Rewarding Behavioral Expectations *SET Mean (50%)*	1. Is there a documented system for rewarding student behavior?	*Reward System Documentation*
	2. Do 50% or more students asked indicate they have received a reward (other than verbal praise) for expected behaviors over the past 2 months?	*Rewards Received*
	3. Does 90% of staff asked indicate they have delivered a reward (other than verbal praise) to students for expected behavior over the past two months?	*Rewards Delivered*
D. System for Responding to Behavioral Violations *SET Mean (62.5%)*	1. Is there a documented system for dealing with and reporting specific behavioral violations?	*Violations System Documentation*
	2. Does 90% of staff asked agree with admini-stration on which problems are office managed and which problems are classroom managed?	*Violations Management*
	3. Is the documented crisis plan for responding to extreme situations posted in 6 of 7 locations?	*Crisis Plan Posted*
	4. Does 90% of staff asked agree with administration on the procedure for handling extreme emergencies (i.e. stranger in building	*Crisis Plan Staff Support*

	with a weapon)?	
E. Monitoring and Decision Making *SET Mean (50%)*	1. Does the discipline referral form list student/ grade, date, time, referring staff, problem behavior, location, persons involved, probable motivation, and administrative decision?	*Referral Form Items*
	2. Can the administrator clearly define a system for collecting and summarizing discipline referrals (computer software, data entry time)?	*Referral Data System*
	3. Does the administrator report that the team provides discipline data summary reports to staff at least three times/year?	*Referral Data Reports*
	4. Do 90% of team members asked report that discipline data is used for making decisions in designing, implementing, and revising school-wide effective behavior support efforts?	*Referral Data Used*
F. Management *SET Mean (37.5%)*	1. Does the school improvement plan list improving behavior support systems as one of the top 3 school improvement goals?	*Behavior Support Priority*
	2. Can 90% of staff asked report that there is a school-wide team established to address behavior support systems in the school?	*Support Team Known*
	3. Does the administrator report that team membership includes representation of all staff?	*Representativeness*
	4. Can 90% of team members asked identify the team leader?	*Team Leader Known*
	5. Is the administrator an active member of the school-wide behavior support team?	*Team School Administrator*
	6. Does the administrator report that team meetings occur at least monthly?	*Team Meetings*
	7. Does the administrator report that the team reports progress to the staff at least four times per year?	*Team Progress Report*
	8. Does the team have an action plan with specific goals that is less than one year old?	*Team Action Plan*
G. District- Level Support *SET Mean (100%)*	1. Does the school budget contain an allocated amount of money for building and maintaining school-wide behavioral support?	*Budget Allocation*
	2. Can the administrator identify an out-of-school liaison in the district or state?	*Administrator Knows Liaison*

APPENDIX Q

Response Selection Rubrics

RUBRIC #1

Not in Place	Somewhat in Place	Satisfactorily in Place	In Place
Unacceptable	Moderately Implemented	Adequately Implemented	Completed
Nothing	Fairly Implemented	Acceptably Implemented	Executed
Not Noted	To some extent Implemented	Pleasingly Implemented	Accomplished
Nothing	A bit Implemented	Suitably Implemented	Realized
Not Introduced	Barely Implemented	Agreeably Implemented	Achieved
Not An Iota	Comparatively Implemented	Arguably Implemented	Performed
Not A Hint	Reasonably Implemented	Practically Implemented	Arranged
Undetermined	Slightly Implemented	Rather Implemented	Ready

RUBRIC #2

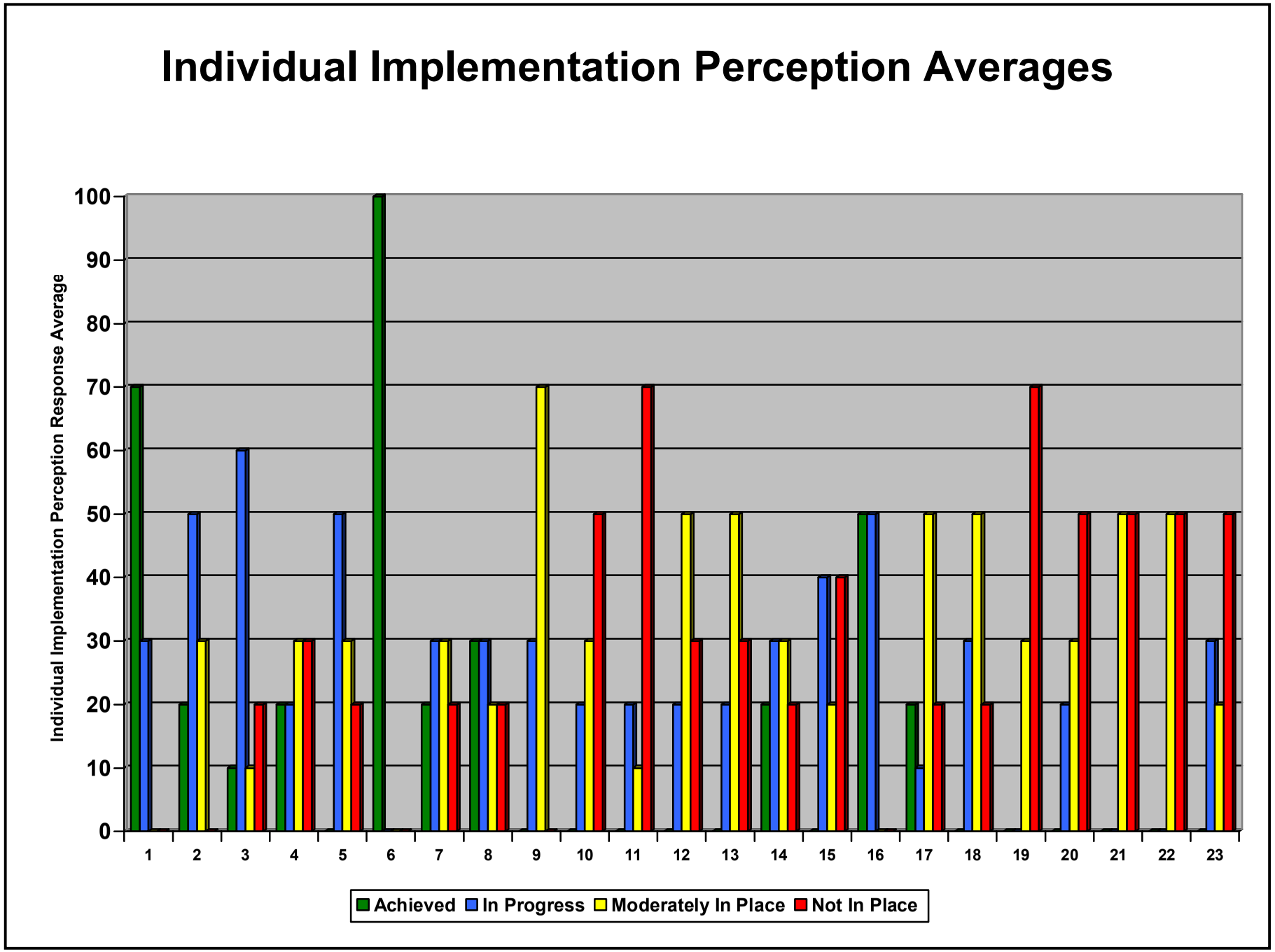
In Place/High	Partial In Place/Medium	Not In Place/Low
Definitely	Partly	Nix
Okay	In Part	Thumbs Down
All Right	Incompletely	Disagree
Agreed	To Some Extent	Disapprove
Sure	Somewhat	Negative
Okay	Moderately	Dismiss
Completely	To A Degree	Deny
Positively	In Some Measure	Unacceptable

RUBRIC #3

Poor	Fair	Good	Excellent
Not Started	Moderately In Place	In Progress	Achieved
Weak	Adequate	Finer	Strong
Inadequate	Passable	Choice	High Quality
Feeble	Average	Quality	First-Rate
Meager	Reasonable	Exceptional	First-Class
Bad	Decent	Better Than Average	Superior
Inferior	Moderate	Select	Outstanding
Scanty	Respectable	Ample	Superb
Deficient	Mediocre	Sufficient	Tremendous

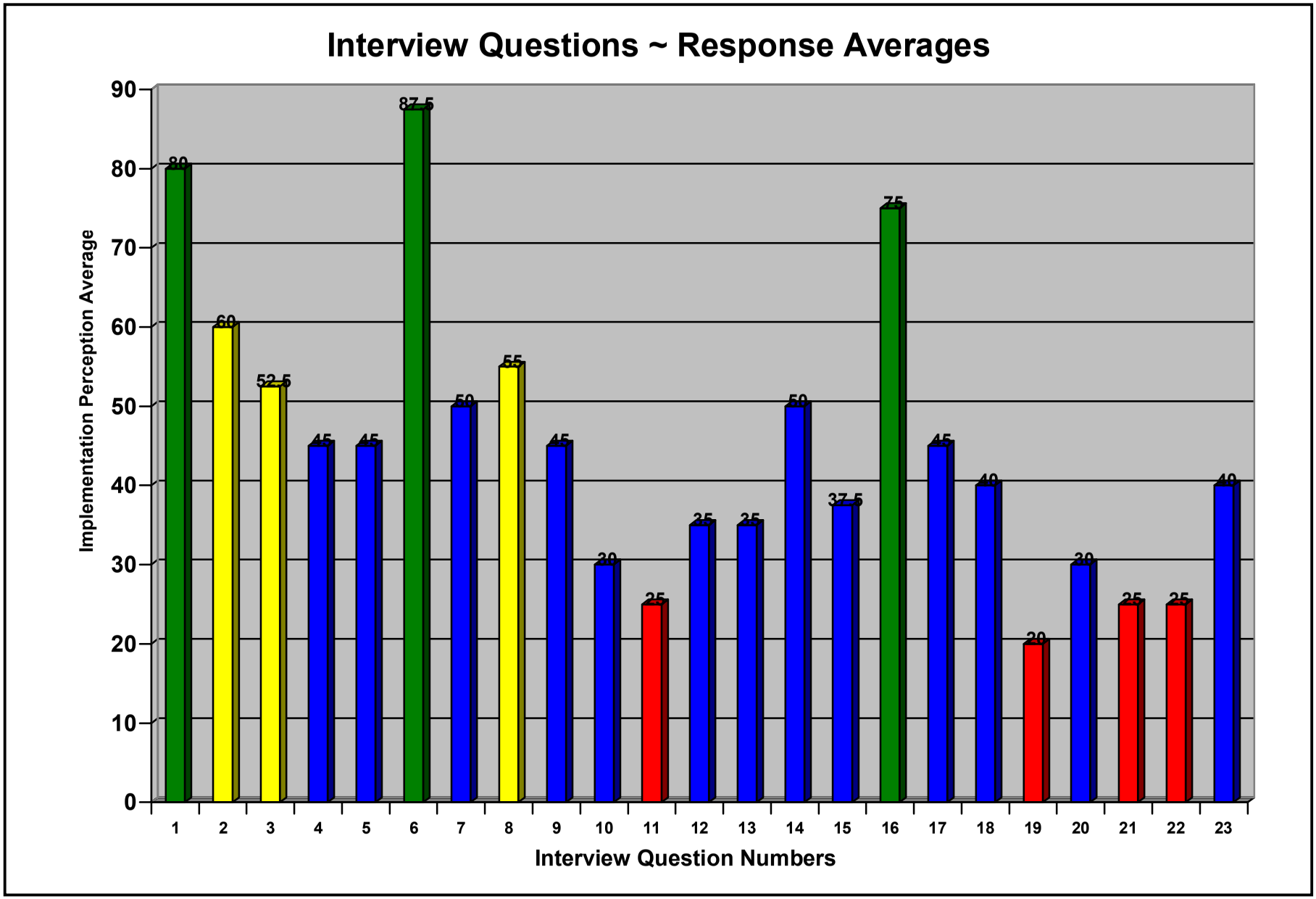
APPENDIX R

Individual Interviews – Implementation Perception Averages



APPENDIX S

Individual Interview Questions – Response Averages



Implementation Graph Key

Achieved = 87.5%	In Progress = 62.5%	Moderately in Place = 37.5%	Not in Place = 12.5%
76%-100%	*51%-75%*	*26%-50%*	*0%-25%*

END OF DOCUMENT