AN EXAMINATION OF THE EFFICACY OF TRAINING SCHOOL PERSONNEL TO BUILD BEHAVIORAL INTERVENTIONS FROM FUNCTIONAL BEHAVIORAL ASSESSMENT INFORMATION

by

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DISSERTATION ABSTRACT

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Title: An Examination of the Efficacy of Training School Personnel to Build Behavioral Interventions From Functional Behavioral Assessment Information

The current study evaluated the efficacy of a training series designed to teach typical school-based behavior support professionals to build behavioral interventions from functional behavioral assessment (FBA) information. The study was conducted in three stages. First, a descriptive assessment examined the extent to which typical school team leaders demonstrated knowledge of core behavior support plan (BSP) development features following a four-part training series on the development and implementation of function based supports. The second stage of the study assessed the extent to which participants who met criteria for BSP development during training were then able to lead a typical school team in building a BSP that was perceived by expert behavior analysts as "technically sound." In the final stage, a nonconcurrent multiple-baseline design was used to determine if there is a functional relationship between implementation of BSPs led by typical school-team leaders who received the training and improvement in the level of student problem behavior.

Thirteen school professionals participated in four 1-hour “From Basic FBA to BSP” training sessions. A posttest analysis of BSP knowledge indicated that the participants ended training with the knowledge needed to use FBA information to develop student BSPs. Six of the 13 professionals went on to lead school-based teams in the development of BSPs that were rated by outside experts as technically adequate. Direct observation data were collected on student behavior during the implementation of five of the six resulting BSPs, and decreases in problem behavior and increases in academic engagement were seen for all five student participants. Additionally, participating team leaders and classroom staff indicated that they found the procedures and tools used to be both acceptable and effective. These results document preliminary findings supporting the efficacy of a four-part training series used to teach typical school staff to use FBA data in designing student BSPs. Further implications for practice in schools and directions for future research are discussed.

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CHAPTER I

STATEMENT OF PURPOSE AND LITERATURE REVIEW

Statement of Purpose

The present study examined the efficacy and efficiency of training school personnel to build behavioral interventions from functional behavioral assessment (FBA) information. A growing body of research documents that behavior support developed from FBA information is more likely to result in desired behavior change. Recent research also suggests that, while typical school personnel may be trained to conduct basic functional behavioral assessments, using the FBA information effectively requires at least one member of the behavior support planning team to be knowledgeable about behavioral theory. The present research will assess whether a four-part training workshop is sufficient to allow individuals with basic behavioral training to master the skills needed to guide a school team through use of FBA information to build a formal behavior support plan that is (a) likely to be implemented and (b) likely to benefit the student. Two research efforts were completed. The first provides a descriptive demonstration of the extent to which the lessons in "From 'Basic FBA' to BSP" ended with a change in participant knowledge and participants capable of building contextually appropriate and technically adequate behavior support plans, given "basic" problem behavior challenges. The second effort involved a formal, multiple-baseline analysis of the extent to which new behavior support plans developed by participants, in the normal context of their

school roles, could be implemented with fidelity and document functionally related change in student behavior.

Literature Review

Discipline issues are one of the largest challenges faced in public schools (Ducharme & Shecter, 2011; Safran & Oswald, 2003). Problem behaviors such as insubordination, classroom disruption, and bullying impede learning and consume valuable instructional time (Anderson & Kincaid, 2005). The prevention or reduction of early patterns of problem behavior has important educational implications. For example, students who demonstrate persistent problem behaviors in elementary school are at an increased risk of developing maladaptive relationships with teachers and peers, resulting in social isolation and later academic failure (January, Casey, & Paulson, 2011; Walker et al., 1996; Windle & Mason, 2004). Without effective intervention, recurrent behavior problems often result in removal from general education settings (e.g., office referrals, detentions, suspensions) and can ultimately lead to unnecessary referrals for special education services and diagnoses of emotional and behavioral disorders (Lane, Umbreit, & Beebe-Frankenberger, 1999; Scott, Anderson, & Spaulding, 2008; Sterling-Turner, Robinson, & Wilczynski, 2001).

The development of appropriate social behavior for students who exhibit challenging behavior is most likely when effective interventions are put into place early, before problematic patterns of behavior are strengthened (Dunlap & Carr, 2007; Horner, Albin, Todd, Newton, & Sprague, 2011). A significant body of research indicates that

individualized function-based supports (i.e., procedures and interventions designed to directly address the function of the student's problem behavior) based on functional behavioral assessment are highly effective in decreasing persistent patterns of challenging behavior (Conroy, Dunlap, Clarke, & Alter, 2005; Ingram, Lewis-Palmer, & Sugai, 2005; Marquis et al., 2000; Newcomer & Lewis; 2004). In 1997, amendments to the Individuals with Disabilities Education Act (IDEA) mandated the use of functional behavioral assessment (FBA) to guide the development of positive behavioral supports for students with disabilities exhibiting problem behavior that impedes their educational success. Since that time, the use of FBA has steadily expanded and is now advocated as best practice for addressing challenging behavior of students with and without disabilities (Crone & Horner, 2003; Scott, Alter, & McQuillan, 2010; Scott & Caron, 2005; Sugai & Horner, 2006).

A crucial step in the FBA process is translating the FBA information for individual students into technically sound, function-based supports and interventions. Although current legislation requires that school-based teams utilize FBA findings to build behavior support plans, the law does not provide clear guidelines describing *how* to most effectively develop and implement function-based support (Browning-Wright et al., 2007). Unfortunately, though many school professionals have received training on conducting team-based FBA and the importance of function-based supports, research suggests that this training has not been sufficient to teach the skills needed to effectively utilize FBA data when developing behavior support plans (BSPs; Conroy, Alter, & Scott, 2009). For example, in a review of 71 team-developed student FBA-BSPs, Van Acker,

Boreson, Gable, and Potterton (2005) found that nearly half of the plans showed little or no correspondence between the FBA data and the behavior support strategies selected, and, possibly more concerning, the authors noted that several of the plans included contraindicated strategies (i.e., strategies which result in the student gaining access to the maintaining reinforcer following the occurrence of problem behavior). In a related study, Cook et al. (2007) examined 110 FBA-BSPs developed by district behavior support teams and found 89% of the plans to be missing critical features such as an operational definition of the problem behavior and strategies for increasing functionally equivalent alternative behaviors.

A significant concern as schools struggle to build capacity to develop and implement function-based support is the time and resources required to implement the FBA-BSP process and a general lack of trained school-based personnel (Borgmeier & Horner, 2006; Ducharme & Schecter, 2011; Hawken, Vincent, Schumann, 2008). Recognizing these challenges, Scott, Liaupsin, Nelson, and McIntyre (2005) have proposed that the FBA-BSP process be conceptualized in varying "degrees" or levels of complexity. The rationale behind this approach resides with the idea that while students exhibiting serious chronic problem behaviors may require a time and resource-intensive BSP developed with help from an "expert" with extensive training in behavioral theory and BSP development, students who exhibit consistent mild to moderate behavior problems may do fine with a relatively simple behavioral support plan developed by a team of typical behavior support professionals. Loman and Horner (2012) have demonstrated that typical school personnel can accurately collect basic functional

behavioral assessment data. The use of this data for the design of behavior support plans appears to require that at least one member of the design team have more conceptually complete behavioral training (Benazzi, Horner, & Good, 2006).

Increasing the number of school professionals trained in the development of BSPs for students with mild to moderate problem behavior may strengthen a school's capacity to support students using evidence-based practices in a proactive manner, thereby decreasing the number of cases for which more complex and resource-intensive BSPs are necessary (Heckaman, Conroy, Fox, & Chait, 2000; Loman, 2010). However, if function-based supports are to be provided efficiently and effectively, typical school personnel will need (a) a more complete understanding of how to best structure and utilize their multidisciplinary teams to address a range of behavioral concerns, and (b) systematic and efficient training related specifically to the use of FBA information when developing behavior support for students in schools (Gettinger & Stoiber, 2006; Renshaw, Christensen, Marchant, & Anderson, 2008). The purpose of the proposed study is to present an efficient training series for typical behavior support professionals with knowledge of basic behavioral theory and the FBA process focused on the critical components of function-based BSPs and the skills needed to lead a behavior support team through the process of developing function-based supports based on student FBA data.

More specifically, this study examines if, after completing a four-part training series on the development and implementation of function based-supports, typical school personnel can (a) identify behavior support interventions that are and are not functionally related to problem behavior, and then (b) lead school-based teams in using student FBA

data to develop and implement BSPs that are technically adequate, contextually relevant, and effective at producing change in student behavior.

Function-Based Behavior Support: Historical Background

Functional behavioral assessment is a process designed to maximize the effectiveness and efficiency of behavioral support by identifying the antecedents and consequences that influence the occurrence of problem behavior (O'Neill et al., 1997). Specifically, FBA is used to (a) operationally define the problem behavior(s); (b) identify antecedent conditions under which that problem behavior is most and least likely to occur; (c) identify the most likely consequence(s) maintaining that behavior (i.e., the *function* of the problem behavior); and (d) develop a function-based behavior support plan for minimizing reinforcement for challenging behavior and increasing appropriate behavior (Carr & Durand, 1985; Carr et al., 1994; Crone & Horner, 2003; Fox & Gable, 2003; Gresham, Watson, & Skinner, 2001; Horner et al., 2011; O'Neill et al., 1997; Sugai et al., 2000; Sugai, Lewis-Palmer, & Hagan-Burke, 1999; Umbreit, Ferro, Liaupsin, & Lane, 2007; Watson & Steege, 2003).

The idea that intervention efforts should begin with a thorough functional analysis to serve as the basis for selecting effective behavior change interventions is not new but has been a part of analyzing and developing interventions for challenging behavior since the inception of applied behavior analysis (Bijou, 1961; Carr, 1977, 1991; Durand, 1987; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982). Both the field of applied behavior analysis and the technology of functional behavioral assessment reflect the most basic

tenet of behaviorism, that behavior is a function of its environment and can therefore be controlled through environmental manipulations (Skinner, 1953). Applied behavior analysts consider the behavior of an individual within the context of the environment and use the critical features of FBA (the identification of behavior, its antecedents, and consequences) to design effective behavior change interventions based on the hypothesized function of the problem behavior (Gresham et al., 2001).

A solid conceptual and empirical foundation for understanding and treating problem behavior using function-based interventions exists within early applied behavior analytic research (e.g., Bijou, Peterson, & Ault, 1968; Hawkins, Peterson, Schweid, & Bijou, 1966; Lovaas, Freitag, Gold, & Kassorla, 1965; Wahler, 1969). In a 1977 review of current practices for the treatment of serious aggression and self-injurious behaviors for individuals with disabilities, Carr suggested that treatment failures and inconsistencies reported in the research literature were due to a lack of understanding related to the function of the problematic behaviors. It was Carr's suggestion that severe problem behavior could be maintained by reinforcement contingencies that differed across individuals. Carr's hypothesis that self-injurious and other problem behaviors could be maintained by positive reinforcement (the contingent presentation of a stimulus, resulting in an increase in behavior) and negative reinforcement (the removal of an aversive stimulus, resulting in a decrease in behavior) was supported by Iwata et al. (1982) in their seminal paper describing procedures for conducting *functional analysis*. Iwata and colleagues demonstrated how the systematic manipulation of environmental variables under controlled experimental conditions could be used to (a) identify the function that

problem behavior serves for an individual, and (b) predict the environmental conditions under which the behavior is most likely to occur. In this article the authors also described the important implications of determining behavioral function for the selection of effective treatment interventions.

Since the publication of the 1982 Iwata et al. article, hundreds of replication and extension studies have demonstrated the efficacy of functional analysis as a research tool for identifying the function of and developing effective function-based treatments for a broad range of challenging behaviors in experimental and clinical settings (Hanley, Iwata, & McCord, 2003; Iwata & Dozier, 2008), and functional analysis is often regarded by researchers to be the "gold standard" for identifying behavioral function (Sasso, Conroy, Peck Stichter, & Fox, 2001). However, traditional experimental functional analyses are time and resource intensive and are often difficult to implement in applied settings. In 1994, Carr described a "practical need for developing descriptive analytic procedures that complement and produce results that are congruent with those obtained from traditional functional analyses" and that would more fully account for the range of stimulus conditions present in the natural environment (p. 393). Carr proposed a functional *assessment* technology that would utilize direct observations of behavior along with its antecedents and consequences in natural settings to (a) develop hypotheses related to function and (b) design interventions based on those hypotheses.

For the past 15 years, applied behavioral research conducted in educational settings has focused largely on the relevance and efficacy of "practical" or basic functional assessment methods similar to those described by Carr (1994), and the

effective use of functional behavioral assessment methodology in schools has been well documented (Carr, Langdon, & Yarbrough, 1999; Conroy et al., 2005; Filter & Horner, 2009; Gresham et al., 2001; Loman & Horner, 2012). Current literature describes the use of multiple methods for conducting FBA in school settings (e.g., Cook et al., 2012; Crone & Horner, 2003; Horner et al., 2011; O'Neill et al., 1997; Umbreit, Lane, Ferro, & Liaupsin, 2006). Generally, the process is conducted by gathering information using both indirect measures and direct observations of the target behavior in context. Initially, information is gathered using indirect assessment methods (e.g., teacher/staff interviews, surveys, rating scales) to clearly and operationally define the target behavior(s) as well as the antecedent and consequent events associated with that behavior. This information is then used to identify the hypothesized or potential function of the problem behavior. Next, direct observation data are collected across settings and times when the problem behavior is most and least likely to occur in order to verify the accuracy of the proposed function.

The primary purpose of the FBA process is to develop effective behavior support plans that directly address the function of an individual student's problem behavior, and have the contextual fit needed for practical implementation. A significant body of research demonstrates that, when implemented with fidelity, function-based interventions and supports designed based on FBA information are the most effective method for supporting students who exhibit challenging behaviors in school settings (Carr, Langdon, et al., 1999; Didden, Duker, & Korzilius, 1997; Heckaman et al., 2000; Marquis et al., 2000). Research highlighting the importance of utilizing FBA data to develop

interventions has also demonstrated that, in addition to being less effective at decreasing challenging behavior, intervention strategies that are not derived from FBA findings may inadvertently reinforce the target behavior, resulting in an increase in problem behavior (Ingram et al., 2005; Newcomer & Lewis, 2004).

Providing Function-Based Support in Schools

Since the 1997 and 2004 reauthorizations of IDEA mandating the use of FBA to build behavior support plans, a great deal of attention has shifted to the efficacy and feasibility of providing function-based support for individual students in the school setting. One well-established behavioral approach to the systematic and sustained implementation of individualized supports in schools is School-Wide Positive Behavior Intervention and Support (SWPBIS). SWPBIS is a multilevel, systems approach to prevention and the implementation of empirically supported practices that addresses all students' behavior support needs at the level of the entire school (Dunlap, Sailor, Horner, & Sugai, 2009; Sugai & Horner, 2006). Within the past 15 years, SWPBIS has been implemented in over 17,000 schools across the United States and abroad (Horner et al., 2011), and a growing body of research literature has demonstrated the positive effects of this framework in preventing problem behavior and reducing the use of exclusionary discipline practices in schools (Bradshaw, Koth, Thornton, & Leaf, 2009; Horner, Sugai & Anderson, 2010; Horner, Sugai, Todd, & Lewis-Palmer, 2005; McIntosh, Chard, Boland, & Horner, 2006; Scott, Nelson, & Zabala, 2003).

Positive Behavior Interventions and Support (PBIS) is an applied technology rooted in applied behavior analysis that is primarily focused on designing environments to prevent challenging behavior and to promote and support prosocial behavior, with a secondary emphasis on minimizing problem behavior (Carr et al., 2002). In applying PBIS methodologies to school settings, researchers in the area of SWPBIS have adapted the three-tiered approach to prevention from the public health literature on disease prevention to the prevention of problem behavior in schools, emphasizing the need for a continuum of interventions that range from preventing the development of challenging behavior to eliminating or reducing the impact of existing problem behavior (Walker et al., 1996). Part of the logic behind investing in this school-wide approach is that changes in behavior that result from individualized function-based support will be more likely to maintain when they occur within a whole-school context that is focused on acknowledging positive behavior and limiting rewards for problem behavior (Horner et al., 2011).

The primary or "universal" tier of SWPBIS consists of proactive interventions that are directed toward all students across all school environments. Interventions at the universal level include elements such as (a) a commonly and positively stated purpose and approach to discipline, (b) the direct and explicit teaching of a small number of positively stated school-wide expectations, and (c) a continuum of strategies for acknowledging and encouraging displays of those expectations (Colvin, Kame'enui, & Sugai, 1993). The goal at this level is to prevent the development of new occurrences of problem behavior. The secondary tier consists of more targeted interventions for those

students who require additional support to be successful at the school-wide and classroom level, and often includes "packaged" group-level interventions that require increased adult attention and monitoring (e.g., "Check-in-Check-Out"; Crone, Hawken & Horner, 2010; Crone, Horner, & Hawken, 2004). Tertiary-level interventions are designed to reduce the intensity, complexity, and frequency of problem behavior for the small percentage of students who are unresponsive to primary- and secondary-level interventions. These individualized interventions utilize FBA to develop strategies for teaching replacement behaviors that serve the same function as the problem behavior and for altering the environment to make problem behavior irrelevant and ineffective (Crone & Horner, 2003; Walker, Ramsey, & Gresham, 2005).

Schools implementing SWPBIS have systematic processes in place for documenting and analyzing patterns of student behavior (Anderson & Kincaid, 2005). One essential component of a SWPBIS approach is team-based data for decision-making. Within this framework, schools typically have two levels of teams, a core school-wide team and "action teams" that design individualized student supports (Todd, Horner, Sugai, & Colvin, 1999). The school-wide team is led by a school administrator and includes a representative sample of the school staff (e.g., general education teacher, special education teacher, support staff). This team is responsible for coordinating and managing all aspects of behavior support within a school, including implementing programs that effectively address school-wide priorities and overseeing the evaluation on programs, sharing outcomes, and making modifications as necessary (Sugai et al., 2005). The school-wide team meets regularly to review data (usually in the form of office

discipline referrals) to identify time periods, locations, classrooms and individual students that may need additional support.

The second team level is made up of action teams that are formed to conduct functional assessment and develop and oversee the implementation of individual student BSPs (Crone & Horner, 2003). At a minimum, student-level action teams should consist of (a) someone who is knowledgeable about basic behavioral theory and essential FBA-BSP components; (b) individuals knowledgeable about the student and his or her problem behavior (e.g., teachers, support staff); and c) an individual with knowledge of the context and resources available to implement the BSP (Benazzi et al., 2006). Within this two-level model, the school-wide team is responsible for receiving and managing requests for assistance with student behavior problems and deciding when an individual student action team is needed to begin the FBA-BSP process (Todd et al., 1999).

Historically, FBA has been most commonly applied at the tertiary level with students exhibiting serious and/or pervasive challenging behaviors that have been resistant to previous intervention efforts. However, research indicates that schools continue to experience difficulties in applying best practices in FBA technology to develop behavioral supports due in large part to a lack of resources and trained personnel and the amount of students requiring Tier 3 supports (Hawken et al., 2008). One potential solution that a number of researchers have advocated is a proactive approach to FBA-BSP that entails training typical school personnel in the development of function-based interventions for students who exhibit persistent mild to moderate behavior problems (e.g., Broussard & Northrup, 1997; Browning-Wright et al., 2007; Park, 2007; Renshaw

et al., 2008; Scott, Liaupsin, Nelson, & Jolivette, 2003; Scott et al., 2005). FBA and the implementation of function-based interventions can be most effective when students first begin to demonstrate persistent patterns of challenging behavior (i.e., before problem behavior is reinforced and strengthened over time; Dunlap & Carr, 2007; January et al., 2011; Walker et al., 1996); therefore, by intervening early, schools can limit the number of students requiring more intensive interventions and supports.

Although the core concepts of prediction, function and prevention remain constant across all levels of SWPBIS, the way in which function-based supports are designed and implemented may vary considerably depending on the nature of the target behavior (Scott & Caron, 2005). For example, for the most challenging student behaviors, the FBA process is likely to include multiple direct methods of observation and data collection across a number of settings, days, and times and ultimately result in a complex BSP that is developed with guidance from an individual with extensive training in behavioral theory and intervention development and implementation (e.g., a behavior analyst or behavior specialist with training at the master's or doctoral level). In contrast, a student with mild to moderate problem behavior that occurs in a limited number of settings may benefit significantly from a simplified team-based FBA process utilizing both direct and indirect data-collection methods, which a team of typical school-based behavior support professionals, led by a team member who is knowledgeable about and able to guide the team process, uses to develop a relatively straightforward BSP (Park, 2007). In using a proactive approach, school-wide behavior support teams would consider the nature and complexity of the problem behavior (e.g., how often the behavior occurs, the number of

contexts in which the behavior occurs, the severity of the problem behavior, whether or not the behavior is dangerous to the student or others) to decide (a) the type of FBA procedures that are needed and (b) how to best structure the student action team to utilize the most parsimonious procedures necessary to create an effective BSP (Scott et al., 2005).

Critical Features of Behavior Support Plans

The BSP provides a blueprint for designing environments to make challenging behavior irrelevant, inefficient, and ineffective (Crone & Horner, 2003). The goal of team-based BSP development is to build a plan that is both technically adequate and contextually appropriate. For support plans to be effective in producing behavior change, it is essential that the strategies contained within those plans directly address the function of student problem behavior. "Technical adequacy" refers to the degree to which the procedures and supports included in the BSP are both logically linked to the functional behavioral assessment hypothesis and are evidence-based (i.e., empirical or clinical application data should support the effectiveness of the procedures used in the plan; Alberto & Troutman, 2009; Horner, 1999). Another factor that has been demonstrated as essential to the effectiveness of the BSP is treatment integrity (Cook et al., 2012). The BSP functions as a guide for the persons who will ultimately be responsible for carrying out the plan; therefore, it is critical that the plan be *contextually appropriate*. BSPs are judged as having "good contextual fit," based on the extent to which the strategies and interventions included in the plan are a "good fit" with the values, resources, and skills of

the target individual and those responsible for the implementation of the program (Albin, Lucyshyn, Horner, & Flannery, 1996). If BSP strategies are function- and evidence-based but are not feasible to implement in the natural setting (e.g., if the plan is expensive or requires extensive time or effort to implement), the plan is not likely to be implemented with fidelity or likely to be effective (Benazzi et al., 2006; Horner, Albin, Sprague, & Todd, 2000). Therefore, the importance of contextual fit cannot be overstated (Crone & Horner, 2003).

Moving From FBA to BSP

Horner et al. (2011) provide a sequential model for the team-based development of individualized behavior support, which describes the critical steps involved in utilizing FBA information to build function-based BSPs. The authors list the first step as ensuring that the FBA includes a complete and accurate summary statement. The summary statement describes the relationship between antecedent events, the problem behavior, and the consequences thought to be maintaining the problem behavior (Crone & Horner, 2003). The team assesses the completeness of the summary statement by ensuring that the statement includes (a) an operational definition of the problem behavior; (b) the routine(s) in which the problem behavior occurs; (c) an observable description of antecedent conditions (i.e., both triggering antecedents and any identified setting events) that are associated with the problem behavior; (d) a description of consequent events that typically follow the problem behavior; and (e) the hypothesized function of the problem behavior (O'Neill et al., 1997). Once the team has agreed that the information contained

in the FBA summary statement is complete and accurate, the team uses this information to guide the development of the BSP (Crone & Horner, 2003; Horner, 1999).

One tool that is designed to aid teams in making the link between the FBA and the BSP is the Competing Behavior Pathway (CBP) model (Crone & Horner, 2003; O'Neill et al., 1997; Sugai et al., 1999. The CBP provides a literal "framework" to logically link the multiple intervention procedures and support strategies of a comprehensive BSP to the information provided in the FBA (see Figure 1). The behavior support team members complete the CBP model using the information from the FBA summary statement along with selected operationally defined alternative and desired behaviors. The alternative behavior is one that results in the same type of reinforcement that is maintaining the problem behavior, and is a behavior that the student already engages in or can be quickly and easily taught. This behavior acts as a short-term solution while the team implements the BSP strategies aimed at teaching new skills and increasing desired behaviors. Desired behavior is what school staff would ultimately like the student to do under the conditions in which the problem behavior is currently occurring. In addition to operationally defining the desired behavior, the team also specifies the anticipated maintaining consequence(s) for the desired behavior, which may or may not be those currently maintaining the problem behavior (Horner et al., 2011).

Next, the behavior support team works together to identify behavior support strategies for decreasing inappropriate behavior and increasing and supporting alternative and desired behaviors. Technically sound BSPs should include (a) antecedent strategies to neutralize or eliminate identified setting events and antecedents that "set up" or "trigger"

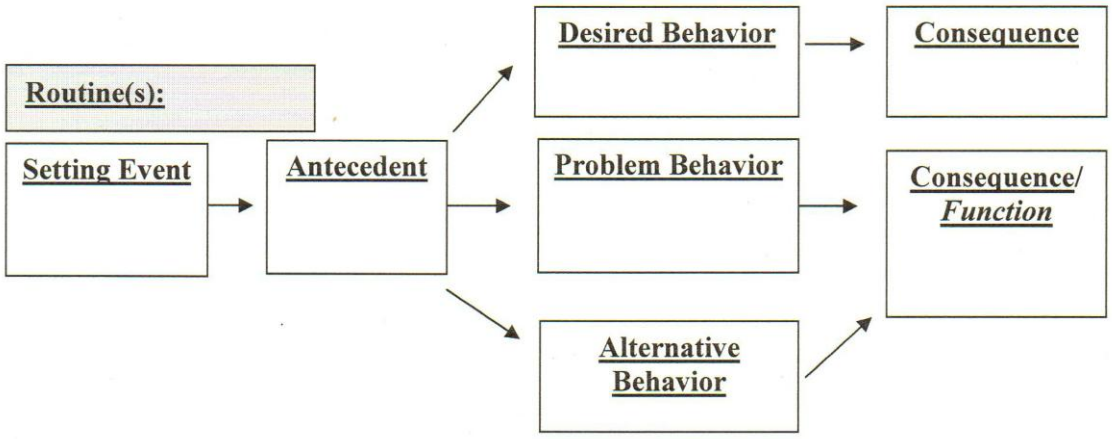


FIGURE 1. Competing Behavior Pathway model.

problem behavior (making the behavior irrelevant), (b) strategies for systematically and explicitly teaching alternative and desired behaviors that will enable the student to access desired consequences in more socially acceptable ways (making the problem behavior inefficient), and (c) consequence strategies that both minimize reinforcement following problem behavior and maximize rewards for appropriate behavior (making the problem behavior ineffective; Benazzi et al., 2006; Crone & Horner, 2003; Horner & Carr, 1997; O'Neill et al., 1997). When applicable (i.e., when problem behavior potentially presents a danger to the target student or others), the BSP should also include emergency/safety procedures to be followed if the behavior escalates to dangerous levels. Team members identify several strategies in each of these categories, and then work together to select those strategies that are both directly related to the function of the problem behavior as identified in the FBA and have good contextual fit. When team members determine whether or not BSP strategies are contextually appropriate, Horner et al. (2011) suggest that they consider (a) the values and skills of the implementers, (b) the resources available

for implementing the BSP, and (c) the level of administrative support provided for BSP implementation.

Finally, the team develops an action plan for implementing and evaluating the effectiveness of the BSP. The action plan should specify (a) the person(s) responsible for implementing each aspect of the plan, (b) a timeline for implementation and progress monitoring of the plan, (c) the long- and short-term objectives, and (d) the specific activities that will be undertaken and procedures that will be used to meet those goals. Data will be collected and used to monitor the effectiveness of the plan and the extent to which the plan is being followed as it was designed. Therefore, the action plan should also include specific information describing how and when data will be collected, how those data will be evaluated (e.g., graphs and/or work samples will be presented and reviewed at biweekly behavior support meetings), and criteria for determining when the plan needs to be modified.

Research on Team-Developed BSPs

The information gleaned from the FBA process should ultimately result in a nuanced, individualized BSP that produces positive outcomes for the student for whom it is developed by teaching more appropriate replacement behaviors that help the student meet his or her needs without resorting to problem behavior (Etscheidt, 2006; Kamps et al., 1995; Van Acker et al., 2005). However, current research clearly indicates that simply providing school-based behavior support teams with FBA information is not sufficient to ensure that BSP development will be guided by FBA results (Benazzi et al., 2006; Cook

et al., 2007; Scott et al., 2005; Scott & Kamps, 2007; Van Acker et al., 2005). It has been suggested that in order for the FBA-BSP process to be effectively and efficiently applied in schools, school-based professionals need a more complete understanding of the steps necessary to successfully use FBA information to develop behavior support for students in schools (Benazzi et al., 2006; Browning-Wright et al., 2007; Park, 2007; Scott et al., 2005). Yet, surprisingly few empirical studies have examined the critical features of team-based BSP development or methods for systematically and efficiently training school professionals in how to use FBA information when developing behavior support for students (Conroy et al., 2009; Renshaw et al., 2008).

Benazzi et al. (2006) evaluated how the composition of school-based behavior support teams affected the use of FBA information in the design of behavior support plans (BSPs). The authors compared BSPs developed by (a) behavior specialists, (b) behavior support teams that did not include a behavior specialist, and (c) teams that included a behavior specialist. The results indicated that teams working along with a behavior specialist were more successful at using FBA results to design BSPs that were both technically adequate (i.e., functionally relevant) and had a high degree of contextual fit (i.e., a good "fit" with the values, resources, and skills of those responsible for the implementation of the program). However, an important limitation to the generalizability of the findings of this study to typical applied contexts should be noted. The participants serving as "behavior specialists" were not members of the typical school team, but were advanced doctoral students in school psychology who had received many hours of classroom instruction on the development of function-based behavior support, along with

10 hours of instruction in behavioral theory and the essential features of BSPs from the primary investigator. This is problematic because, outside of the context of a research study, typical school-based teams generally have limited access to professionals with this level of extensive training and oftentimes delay or resort to punitive interventions while waiting to consult with a behavioral "expert" (Ervin et al., 2001; Park, 2007; Scott et al., 2004). Moreover, this model limits the opportunities for school-based teams to proactively develop function-based interventions addressing mild to moderate problem behaviors before they escalate and require more time and resources (Scott et al., 2005).

In 2005, Scott et al. assessed the efficacy of training school staff members to facilitate the team-based FBA and behavior support planning process. The authors provided five school professionals (i.e., "facilitators") with one 6-hour training session focused on descriptions of FBA procedures and developing function-based interventions. The facilitators then led behavior support teams through the behavior support planning process. First the facilitators asked team members a series of questions aimed at determining the hypothesized function of the problem behavior using FBA information (e.g., "When is the problem behavior likely to occur, and what tends to happen afterwards?," "Given this information, why do we think the student would want to engage in this behavior?"). Next, the team members (including the facilitator) worked together to develop a BSP. The teams were provided with a list of standard district interventions to choose from but were informed that they could choose interventions that were not on the list.

Discouragingly, the results of this study showed that the school-based teams (led by the trained facilitators) produced BSPs that were missing critical components and continued to select punitive and exclusionary practices. However, the authors noted several significant limitations that may have led to these results. First, the authors stated that the "standard" district forms that the teams used to guide the BSP process did offer punitive and exclusionary interventions and did not prompt team members to select interventions in all of the necessary categories (i.e., antecedent-based, teaching, and consequent-based interventions). A second limitation that the authors listed related to the role of the team facilitator. Although the facilitators did ensure that all team members agreed with the FBA information and hypothesized function of the problem behavior, they did not systematically lead the team through the process of (a) identifying appropriate replacement behaviors, (b) how these behaviors would be taught to the student, (c) how the environment could be arranged to prevent problem behavior and prompt appropriate behaviors, and (d) devising consequences for rewarding appropriate behavior and minimizing reinforcement for problem behavior. The investigators hypothesized that the tendency for the teams to select primarily negative consequence-based interventions may have been due to "inadequate facilitation" (Scott et al., 2005, p. 213) and stressed the need for future studies with an increased emphasis on training facilitators how to lead teams through the specific steps necessary to move from FBA to function-based BSP. The authors also suggested that further empirical support is needed to develop decision rules related to the appropriate conditions under which teams of

typical behavior support professionals can utilize efficient FBA methodologies to develop more “practical” function-based supports.

Study Purpose and Research Questions

The current study evaluated the efficacy of a training series and manual designed to teach behavior support professionals with basic knowledge of behavioral theory and an understanding of the FBA process to lead school-based teams in the development and implementation of effective function-based BSPs for students with mild to moderate problem behaviors. The four-part training series utilized guided practice and realistic school-based examples (Cook et al., 2007; Scott et al., 2005) to teach critical skills for using student FBA information to (a) select appropriate alternative and desired behaviors; (b) identify and select feasible function-based antecedent, teaching, and consequence strategies; (c) design BSP implementation and evaluation plans; and (d) systematically lead a behavior support team through the process of BSP development. The purpose of the study was first to determine if, following 4 one-hour training sessions, participating behavior support professionals could identify BSP interventions that were and were not functionally related to problem behavior. The second purpose was to assess if trained participants who led school-based teams in utilizing student data to develop BSPs could produce BSPs that were both technically sound and contextually relevant, and functionally related to improved student behavior.

The research study was conducted in three phases. The first phase provided a descriptive assessment of the extent to which typical school team leaders demonstrated

knowledge of core BSP development features following the "From 'Basic FBA' to BSP" training. The second phase of the study (also descriptive) sought to determine, *if* participants met criteria for BSP development during the training, whether they went on to lead a typical school team to design a BSP that was (a) perceived by school personnel as contextually appropriate, and b) perceived by outside expert behavior analysts as "technically sound." The third phase was the experimental focus of the study. In this final phase, a nonconcurrent multiple-baseline design was employed to examine if there is a functional relation between implementation of BSPs led by typical school-team leaders who received "From 'Basic FBA' to BSP" training, and improvement in the level of student problem behavior. As a secondary research question in the third phase, the study assessed the level of implementation fidelity with which BSPs were adopted by typical classroom staff. Specifically, the study addressed the following research questions:

1. Is there a change in participant knowledge related to BSP development following 4 one-hour "From 'Basic FBA' to BSP" training sessions?

2. Are BSPs developed by participating behavior support teams viewed as (a) technically adequate by external expert behavior analysts and (b) contextually appropriate by the team members who implement the plans?

3. Is there a functional relationship between the implementation of team-developed function-based behavior support plans and improvement in student behavior? Are team-developed behavior support strategies implemented with fidelity by typical school personnel in typical settings?

CHAPTER II

METHODS

Participants

Behavior Support Team Leaders

Thirteen elementary school professionals (e.g., school psychologists, counselors, special education teachers) with (a) knowledge of basic behavioral theory, (b) experience conducting FBA, and (c) the role of leading BSP teams as part of their job requirements served as participants in this research study. Potential participants were selected based on district information regarding their current job responsibilities (including the role of leading teams in BSP development) and the extent of their training in FBA and behavioral theory. Prior to the beginning of the first training session, each participant completed a brief questionnaire (see Appendix A) in which they reported (a) their current position in the school and number of years in that position, (b) the extent of knowledge of behavioral theory, (c) their previous training in FBA and whether or not that training had occurred within the past 2 years, and (d) the number of FBAs and BSPs they had helped to complete within the past 2 years. Participants also completed a 5-item test designed to assess their knowledge of basic behavioral concepts (modified from Loman, 2010; see Appendix B). The average score on the assessment of basic behavioral concepts was 98.6%, with scores ranging from 91% to 100%. Specific team leader demographic information and scores on the test of basic behavioral concepts are shown in Table 1.

TABLE 1. Team Leader Demographics and Test Scores

Team Leader	Position	Years	FBA Training (w/in 2 yrs)	FBAs Conducted (w/in 2 yrs)	BSPs Developed (w/in 2 yrs)	Behavior Theory	Concepts Test Score %
1	Learning Specialist	4	No	1-3	4-6	3	100
2	SPED Teacher	5	No	10+	10+	4	100
3	Learning Specialist	13	No	10+	6-10	4	100
4	School Psychologist	2	Yes	4-6	4-6	4	100
5	Autism Specialist	8	No	4-6	10+	4	100
6	Behavior Specialist	1	No	0	4-6	5	100
7	Counselor	8	Yes	1-3	10+	4	91
8	Counselor	19	Yes	6-10	10+	4	100
9	SPED Teacher	27	Yes	4-6	4-6	4	91
10	Resource Teacher	26	No	0	0	4	100
11	School Psychologist	2	Yes	4-6	10+	3	100
12	Counselor	5	Yes	1-3	1-3	4	100
13	School Psychologist	12	Yes	10+	10+	5	100

Note. Participants rated themselves on their knowledge of behavioral theory on a 1 to 5 scale (1= very limited, 5=extensive).

School Behavior Support Teams

Six of the 13 team leaders who participated in the "From 'Basic FBA' to BSP" training sessions consented to participating in the second and third phases of the study and selected students from their campuses who met study inclusion criteria. Members of six behavior support teams led by these team leaders participated in the project. Team members were identified by their respective campus-based team leader based on their current role in the school (e.g., classroom teacher, support staff) and their knowledge of the student for whom the plan was being built. Prior to meeting to develop the student BSP, each team member was provided with an explanation of the study and their role as part of the study by the team leader.

Students

Each of the six team leaders guided a school behavior support team in developing a BSP for one student exhibiting persistent patterns of problem behavior (for a total of six elementary-age students). Using typical campus-based nomination protocols, students were nominated by their classroom teachers as needing individualized support to address challenging behaviors that were interfering with their social or academic success but were not viewed as being dangerous for the student or others in the environment. Following staff nomination, the researcher conducted preliminary direct observations of potential student participants, using the Functional Assessment Observation Form (FAOF; O'Neill et al., 1997) to verify that student target behaviors fit inclusion criteria for the study. Each student was observed during one to two 20-minute sessions in a setting nominated by

their classroom teacher to assess if the student engaged in problem behavior considered to be a barrier to his or her education, but (a) was not placing himself/herself or others at risk, and (b) was not occurring with an intensity or breadth of locations to suggest that a more intense level of behavioral assistance was warranted. Both parental consent and student assent were obtained for all student participants.

Sebastian

Sebastian (pseudonyms were used for each of the students) was a typically developing 6-year-old male Caucasian student in a first-grade general education classroom with 24 students and one teacher. Sebastian's behaviors of concern were being off task (e.g., turning away from the speaker/materials, not engaging in choral reading exercises) and talking out (i.e., asking questions, making unrelated comments, or blurting out answers without raising hand and getting permission).

Bailey

Bailey was a typically developing 11-year-old male Caucasian student in a fifth-grade general education classroom with 25 students and one teacher. Bailey's behaviors of concern included being off task (e.g., drawing pictures during independent academic work), being out of seat without permission, and "playing with" objects or academic materials (e.g., drumming pencils on his desk, taking mechanical pencils apart, pulling strings off of his clothing or the carpet and shaking them).

Micah

Micah was a typically developing 5-year-old male African American student in a half-day general education kindergarten classroom with 21 students, one classroom teacher, and one instructional assistant. The behaviors of concern identified by Micah's teachers included talk-outs/noises made with his mouth or hands, invasion of personal space of others (i.e., leaning on, touching/grabbing peers, teacher, or teaching materials), and getting out of his seat and wandering around the room without permission.

Charlie

Charlie was a 7-year-old typically developing male African American student in a first-grade general education classroom with 26 students, one teacher, and one instructional assistant. The behaviors of concern identified by Charlie's teacher were talking out, talking to and making faces at peers, getting out of his seat and walking around the room without permission, and "playing with" or using materials inappropriately (e.g., stacking markers together and using them like a sword).

Gareth

Gareth was a typically developing 6-year-old male Caucasian student in a first-grade general education classroom with 22 students and one teacher. Gareth's behaviors of concern included being out of seat without permission, talking out/making noises, and talking to and making faces at peers during instruction.

Jessie

Jessie was an 8-year-old male Caucasian student who spent most of his instructional day in a second- to fifth-grade behavior support classroom with one teacher, two instructional assistants, and nine students. Jessie was receiving special education services for a specific learning disability. His behaviors of concern were talking-out behavior (i.e., making comments without raising hand, arguing with the teacher following verbal reprimands) and leaving his seat without permission.

Five of the six selected students (i.e., Sebastian, Micah, Gareth, Charlie, and Bailey) also participated in the direct observation phase of the study (parent consent could not be obtained for Jessie's participation in the direct observation phase). During this phase, team-developed BSP strategies and interventions were implemented by typical classroom staff. Prior to and during intervention, direct observation data were collected on student target behavior in the classroom during an activity identified in the FBA as being associated with the occurrence of problem behavior. Target activities were individually identified for each participant based on information gathered through staff interviews.

Classroom Staff

To assess the extent to which the team-developed BSP strategies and interventions were being implemented with fidelity, observers collected direct observation data on the implementation of BSP procedures by the classroom teachers responsible for

implementing the BSP. The researcher provided teachers with information regarding their role in the study and obtained written consent prior to the beginning of data collection.

Expert Panel

Two expert behavior analysts unconnected with the present research or research community were recruited to judge the technical adequacy of BSPs generated by the behavior support teams. The experts were selected based on (a) their expertise in developing function-based supports as evidenced by at least 5 years of conducting and teaching applied behavior analysis, (b) their professional independence from the research team, and (c) three or more peer-reviewed publications focused on functional behavioral assessment and implementation of function-based supports.

Setting

The study took place in six elementary schools (i.e., kindergarten through fifth grade) in the state of Oregon. Each of the participating schools was implementing SWPBIS as evidenced by a total score of at least 80% on the Team Implementation Checklist (TIC; Sugai, Horner, & Lewis-Palmer, 2001), or the School-wide Evaluation Tool (SET; Sugai, Lewis-Palmer, Todd, & Horner, 2001).

Dependent Measures

BSP Knowledge Test

To assess participant knowledge related to BSP development, each team leader completed one of two versions of the "BSP Knowledge Test" (adapted from Benazzi, Nakayama, Sterling, Kidd, & Albin, 2003). The test consisted of three open-ended questions related to critical components of BSPs and five test vignettes of mock student case examples, including behavior support strategies that participants were asked to rate as either "function-based," "neutral," or "contraindicated" based on the information provided (see Appendix C). Prior to the study, the test was expert-reviewed for content validity and field-tested to demonstrate sensitivity with a school professional fitting the inclusion criteria for the study in an elementary school context. Participants were administered the test at the beginning of the first "From 'Basic FBA' to BSP" (FBFBA) training session, and then a second version of the test upon completion of the final FBFBA training. The total percentage of correctly answered test items pre- and posttraining were calculated for each participant (range of possible scores = 0 to 100%). Five (i.e., 38.5%) of the pre- and posttests were randomly selected and rated by a second rater. Using an answer key indicating the answers for the tests, the two raters achieved 99% total agreement ([Agreement – Disagreement/ Agreement + Disagreement] x 100%).

BSP Critical Features Checklist

The technical adequacy of the BSPs developed by school professionals was evaluated by two experts in the area of function-based support, using the "BSP Critical Features Checklist" (Appendix D), a scoring guide based on the *Intensive Individualized Interventions Critical Features Checklist* (Lewis-Palmer, Todd, Horner, Sugai, & Sampson, 2004). The checklist prompted the scorer to indicate whether the BSP included (a) an operational description of the problem behavior, (b) strategies for preventing the problem behavior, (c) instructional strategies for teaching alternative and desired behavior(s), (d) strategies for minimizing reinforcement for problem behavior and maximizing reinforcement for alternative and desired behaviors, and (e) a plan for implementing the BSP strategies and for evaluating the fidelity of implementation and effects on student behavior. The checklist also asked the rater to indicate whether the preventive, teaching, and consequence strategies developed by the team were indicated by the results of the FBA (i.e., whether they were function-based). Using the BSP checklist, both expert panel members scored each behavior support plan from zero to 20. Scores were averaged across panel members so that each BSP was ultimately awarded one score for technical adequacy.

Contextual Fit Rating Scale

Team members rated each complete plan using the *Self-Assessment of Contextual Fit in Schools* (Horner, Salentine, & Albin, 2003; see Appendix E). The assessment included 16 items organized into eight domain areas: knowledge of the elements of the

plan, skills needed to implement the plan, values reflected in the plan, resources available to implement the plan, administrative support, effectiveness of the plan, whether the plan is in the best interest of the student, and whether the plan would be efficient to implement. Assessment items were rated on a 6-point Likert scale from strongly agree to strongly disagree (1 = strongly disagree to 6 = strongly agree). The range of possible scores is 16-96, with higher scores indicating higher levels of contextual fit. Team member scores were averaged, resulting in one score for contextual fit awarded for each BSP.

Direct Observation

During the third phase of the study (phases described below), trained graduate students from the University of Oregon along with the principal investigator conducted direct observations of the occurrence of student problem behavior and academic engagement in the classroom setting. The data collectors also directly observed and recorded staff behavior during intervention to assess the extent to which BSP strategies were being implemented.

Problem Behavior

Problem behavior included talk-outs/noises, out-of-seat, invading the space of others, and inappropriate use of objects/academic materials. *Talks-outs/noises* were defined as any statement or noise made by a student that interrupts or interferes with instruction or other students' attention to task without being called on or asked a question

directly. *Out-of-seat* was defined as any instance in which a student leaves his or her seat (i.e., student loses contact with surface of the desk, chair, or specified seat on the carpet) without permission from the teacher. *Invading the space of others* was defined as leaning on, touching/grabbing peers or the teacher; or touching/grabbing others' materials. *Inappropriate use of objects/academic materials* was defined as manipulating or using materials for anything other than their intended purpose (e.g., taking apart mechanical pencils, linking markers together and using them like a sword, tearing holes in construction paper and wearing it like a mask, etc.). *Academic engagement* was defined as orienting toward the board, overhead, or teacher; engaging physically or verbally with materials or tasks; contributing to assigned cooperative activities; or engaging in appropriate teacher-approved activities (e.g., reading a preferred book, completing a word search activity) if independent work was completed early.

Direct observations of student behavior were conducted during once-per-day 20-minute sessions prior to and during intervention using a 10-second partial interval paper and pencil recording system (see Appendix F for sample data-collection form). Problem behavior was recorded if it occurred at any point during the 10-second interval. Academic engagement was recorded when student participants were engaged for at least 8 out of 10 seconds in an interval.

Fidelity of Implementation

During the 20-minute direct observation sessions, observers also recorded the extent to which the BSP strategies and interventions were being implemented by the

classroom staff. Fidelity of implementation of BSP strategies was assessed using a checklist that required direct observations of the procedures uniquely defined for each student participant (see Appendix G for sample checklist). Each checklist consisted of six to eight items scored as either "yes," "no," or "not applicable." Items included (a) one-time discreet events (e.g., "Prior to the beginning of the reading lesson, the teacher provided the student with a verbal reminder to raise his hand if he has a question"); (b) conditional probabilities (e.g., "If problem behavior occurred, the teacher provided the student with a visual cue to raise his hand"); and (c) rates of behavior (e.g., "Staff provided at least five specific praise statements for appropriate behavior during the 20-minute observation period"). The checklist generated a percentage-of-items-implemented score. Fidelity of implementation was assessed during all intervention observation sessions.

Design and Procedures

The study was conducted in three phases: (a) training, (b) BSP development, and (c) BSP implementation. First, team leaders completed the "From "Basic FBA' to BSP" training series. Next, team leaders used student FBA data to lead a school-based team in developing a BSP. Finally, typical classroom staff implemented the BSP strategies developed by school professionals in Phase II. Table 2 shows the three phases of the study.

TABLE 2. Methods by Phase

	Phase I Training	Phase II BSP Development by School Teams	Phase III BSP Implementation
Research Question(s)	Is there a change in participant score on BSP Knowledge pre and posttest following instruction? (*Descriptive*)	1. Are BSPs developed by trained team members technically adequate? (*Descriptive*) 2. Are plans contextually appropriate? (*Descriptive*)	1. Are the BSPs functionally related to change in student behavior? (*Experimental*) 2. Are the plans implemented with fidelity? (*Descriptive*)
Participants	13 School Professionals with: a) knowledge of basic behavioral theory b) experience conducting FBA c) Responsibility of leading BSP teams	6 behavior support teams (led by participants from Phase I), each develop BSP for one student	5 students from Phase II, staff implementing BSPs for those students
Procedures	Conducted four 1-hour trainings based on "From 'Basic FBA' to BSP" manual	Assessed BSPs for technical adequacy and contextual fit	Directly observed student and staff behavior
Measures	BSP Knowledge Assessment (pretest/posttest)	1. Analysis of BSPs using Critical Features Checklist 2. Team member ratings using Contextual Fit Rating Scale (Salantine & Horner, 2002)	1. Direct observation data on student behavior, using a non-concurrent MBL design 2. Direct observation data of staff implementation

Phase I: Training

Behavior Support Team Leaders completed four 1- to 1½-hour training sessions (i.e., the first and final training sessions included an additional 30 minutes to administer the pretest/posttest), guided by the "From 'Basic FBA' to BSP" participant's guide (modified from Loman & Borgmeier, 2010; attached as Appendix H). Training sessions occurred once per week for 4 weeks. All trainings were conducted by the principal investigator. The first training session provided an overview of the training series and a review of basic behavioral terms. This session also introduced concepts and examples,

and provided practice opportunities for participants to learn how to (a) identify critical components of FBA summary statements, (b) create a Competing Behavior Pathway, and (c) identify appropriate alternative and desired behaviors. The second training session briefly reviewed content from the first session and provided instruction, modeling, and practice opportunities designed to teach participants to develop preventive, teaching, and consequence strategies that are directly related to the function of the problem behavior. Session 3 provided review activities over content from the previous trainings, instruction on the importance of contextual fit, and instruction and practice opportunities related to implementation and evaluation planning. The fourth and final training session consisted of (a) an overview of all of the concepts and skills taught during the first three sessions, (b) instruction related to and modeling of the steps for leading a team through the behavior support planning process, and (c) a role play exercise designed to provide participants the opportunity to combine and practice the skills they had learned throughout each of the trainings.

BSP Knowledge Pretest/Posttest

Prior to receiving training, each behavior support team leader completed the *Assessment of BSP Knowledge* pretest. After completing all four sessions of the training, team leaders were administered the *Assessment of BSP Knowledge* posttest. There were two versions of the pretest/posttest, Version A and Version B, which were administered in a counterbalanced order (i.e., one group of participants completed pretest Version A and posttest Version B, and the other group completed pretest Version B and posttest

Version A). The pretest/posttest assessment was designed to take approximately 20 minutes to complete; however, participants were provided as much time as needed to complete the assessment. All team leaders completed the posttest in less than 30 minutes.

Functional Assessment

At the end of the second FBFBA training session, participants were asked to use the time before the next weekly meeting to identify a student from their campus whose behavior fit the criteria for inclusion in this study and for whom a BSP was needed. During the subsequent weeks of Phase I, identified students were assessed by the researcher to verify that their problem behavior met the necessary criteria. Following the Training phase, a functional assessment was completed for each selected student participant. An interview with teaching staff most familiar with the student was conducted by either the researcher or the campus school psychologist using the Functional Assessment Checklist for Teachers and Staff (FACTS; March et al., 2000). A function-based summary statement was then developed providing an operational definition of the problem behavior, identification of events that reliably predict problem behavior and the consequences that typically followed the behavior, and identification of the purpose or function of the behavior. Direct observations were then conducted by the researcher to confirm the developed summary statement.

Phase II: BSP Development

Following Phase I, six of the participating team leaders led their school-based teams in developing a BSP using the FBA data collected for their selected student. Team leaders guided team members through this process using a three-part behavior support plan format (see Appendix I) based on the Competing Behavior Pathway model (Crone & Horner, 2003). First the team members used the summary statement from the FBA to develop a competing behavior pathway, identifying the problem behavior, antecedents (including any setting events), consequences, and the function of the problem behavior. Team members completed the pathway by identifying a functionally equivalent alternative behavior and by defining the behavior that the team ultimately desired the student to engage in, along with the consequences for engaging in that behavior. A sample competing behavior pathway is shown in Figure 2.

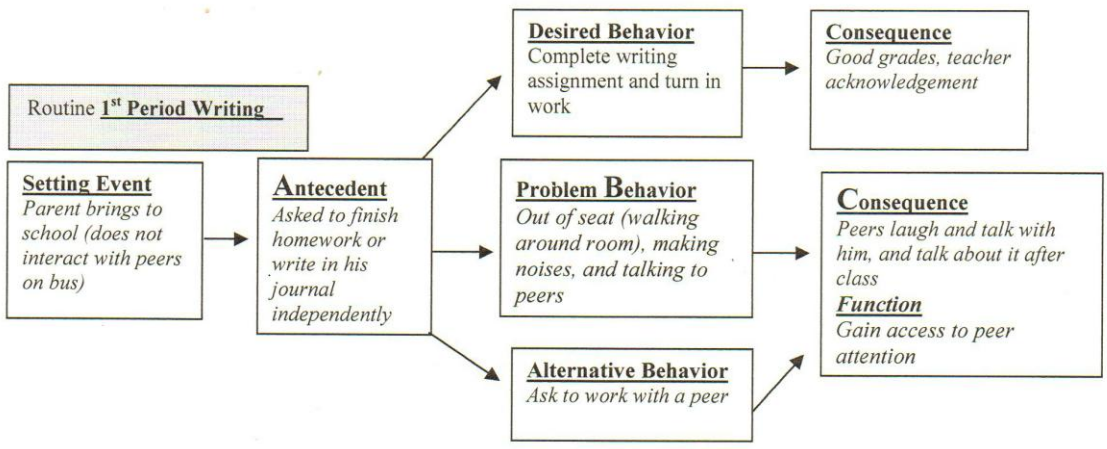


FIGURE 2. Sample competing behavior pathway with mock student data.

Next, the team used student FBA information to develop and select intervention strategies designed to (a) prevent the occurrence of problem behavior, (b) teach alternative and desired behaviors, and (c) minimize reinforcement for problem behavior, while maximizing reinforcement for alternative and desired behaviors. The team leader role included ensuring that selected strategies included function-based interventions and no contraindicated strategies, and that each team member indicated the extent to which they felt the selected strategies were contextually appropriate.

After selecting behavior support strategies, team members created an implementation plan including (a) a list of each selected strategy, (b) the name of the person(s) responsible for implementing each strategy, (c) the expected date of implementation, and (d) a date for reviewing progress. Then, the final step that the team leaders guided their respective teams through was creating an evaluation plan including a short- and long-term goal for student behavior, along with expected dates for meeting each goal. The evaluation plan also specifies procedures for monitoring implementation fidelity, evaluating changes in student behavior, and a specific date for when the team will next meet to review the plan.

BSP Scoring

Team-developed BSPs were evaluated in two ways. First, team members used the 16-item *Self-Assessment of Contextual Fit in Schools* rating scale (Horner et al., 2003) to evaluate the extent to which the strategies and interventions included in the plan were consistent with the skills, values, and available resources of the plan implementers and

their schools. The BSPs were also assessed by two experts for technical adequacy, including the extent to which the plans include (a) all necessary components, and (b) strategies and interventions that are consistent with the identified function of the problem behavior. Members of the expert panel were provided with a packet including (a) FBA information for each student, (b) team-developed BSPs, and (c) the *BSP Critical Components Checklist*.

Phase III: BSP Implementation

In this phase the unique BSP strategies and interventions that were developed by the behavior support teams for Sebastian, Micah, Gareth, Charlie, and Bailey were implemented by typical classroom staff. A nonconcurrent multiple-baseline across-participants design was used (i.e., interventions were introduced in a staggered fashion across participants) to determine if there was a functional relationship between BSP implementation and change in student problem behavior. Three to 5 days per week during baseline and intervention, observers conducted 20-minute observation sessions in which they collected 10-second partial-interval data on student behavior in the participants' respective classrooms. Observations took place at a time during the school day when student FBA data indicated that problem behavior was most likely to occur. Data collection for Sebastian took place during small- and whole-group reading instruction. For Micah, all data were collected during daily "carpet time" (i.e., large-group phonics instruction on the carpet). For Gareth, data collection took place during large-group math instruction on the carpet. Observers collected data on Charlie's behavior during

independent work time in Writing, and for Bailey observation sessions took place during independent seat-work in Math and Reading.

At the end of each session during intervention, observers completed implementation checklists to document fidelity of implementation of the team-developed BSP strategies by classroom staff. Student and teacher data were graphed and visually analyzed on a continuous basis by examining (a) level, trend, and variability of data within experimental phases; (b) immediacy of effect (between phases); (c) overlapping data across adjacent phases; and (d) consistency of data patterns in similar phases (Horner et al., 2005 [which one??? “Horner, Carr, et al., 2005” or “Horner, Sugai, et al., 2005”]; Kratochwill & Levin, 1992; Parsonson & Baer, 1978).

Interobserver Agreement

Interobserver agreement (IOA) was calculated for a minimum of 33% of baseline sessions and 43% of intervention sessions for each student participant. The researcher acted as a second observer and independently scored problem behavior, academic engagement, and implementation fidelity. Agreements between observers were defined as intervals scored in an identical manner by both observers. All primary observers were university students in special education who had previous training related to both direct observation data-collection methods and effective teaching and classroom management strategies. Observers were provided with behavioral definitions and trained using classroom-based examples, video, and on-site observations to a minimum level of 90% total agreement with the researcher prior to beginning formal data collection. Both total

agreement and occurrence-only agreement were calculated for each problem behavior as well as academic engagement. Total agreement between observers was calculated for fidelity of implementation.

Average IOA across participants for problem behavior was 95% for total agreement and 89% for occurrence-only agreement. For academic engagement, average IOA across participants was 98% for total agreement and 95% for occurrence-only agreement. Total percentage agreement was calculated by taking the number of intervals in which the two observers agreed and dividing by the total number of intervals. Occurrence-only agreement was calculated by taking the number of intervals in which the two observers agreed that a specific problem behavior or academic engagement occurred and dividing by the number of intervals in which either observer recorded the target behavior. For the fidelity of implementation of student BSP strategies, total agreement was calculated by taking the number of items on which the two observers agreed and dividing by the total number of items. Average IOA across participants for fidelity of implementation was 98%. Table 3 shows the average IOA for each behavior by student.

TABLE 3. Interobserver Agreement

	Problem Behavior %		Academic Engagement %		
Participants	Total Agreement	Occurrence Agreement	Total Agreement	Occurrence Agreement	Fidelity IOA %
Sebastian	96	86	98	97	98
Bailey	96	92	98	95	100
Micah	94	86	97	95	98
Charlie	97	92	98	96	96
Gareth	95	91	98	93	97

CHAPTER III

RESULTS

Assessment of BSP Knowledge

In Phase I, pre- and posttest scores were used to assess the extent to which there was a change in team leader knowledge from before to after completing the FPFB trainings. Table 4 shows the results of the *Assessment of BSP Knowledge* provided to each of the 13 team leaders before and after participating in the training series. Overall, the average percent change for participants from pre- to posttraining assessment was an increase of 26%. The average participant pretraining score was 62%, ranging from 43% to 80%. While there was variability between participants in their pretraining scores, only one of the participants displayed adequate BSP knowledge (i.e., a score of at least 80% on the pretest assessment) prior to the training (this participant chose to continue with the training series, resulting in a pretest score of 94%). After training, all of the team leaders scored at least 80% on the posttest assessment. The average posttraining assessment score for participants was 88%, ranging from 80% to 96%.

A Wilcoxon Signed Ranks Test showed that the 4-hour (i.e., one hour per week, for 4 weeks) FPFB training series did elicit a statistically significant change in knowledge related to behavior support planning for participating team leaders ($Z = -3.181$, $P = 0.001$). However, it should be noted that this is an analysis of descriptive data and, as such, should not be interpreted as documenting a causal relationship.

TABLE 4. Pre/Posttest Results: Assessment of BSP Knowledge

Participant	Pretest	Posttest	Percentage Change
1*	63% (A)	96% (B)	+33%
2*	67% (A)	84% (B)	+17%
3*	69% (A)	94% (B)	+25%
4	65% (A)	86% (B)	+21%
5	60% (A)	88% (B)	+28%
6*	63% (A)	90% (B)	+27%
7	43% (A)	82% (B)	+39%
8*	61% (B)	92% (A)	+31%
9*	63% (B)	82% (A)	+19%
10	45% (B)	80% (A)	+35%
11	67% (B)	90% (A)	+23%
12	61% (B)	86% (A)	+25%
13*	80% (B)	94% (A)	+14%
Mean	62%	88%	+26%
SD	.09	.05	.07

Note. Asterisks indicate participants that completed the FPFB training series, but did *not* lead a team in the development of a student BSP for the study.

BSP Development

During Phase II, team leaders led teams at their respective schools in the development of BSPs for the selected student participants. Team members developed

individualized function-based plans for each student based on the information provided in the FBA summary statement. All student plans included (a) a completed competing behavior pathway, including identified alterative and desired behaviors; (b) strategies designed to prevent problem behavior from occurring; (c) strategies to teach new alternative and desired behaviors/skills; (d) consequence strategies to maximize reinforcement for appropriate behavior and minimize reinforcement for problem behavior; (e) an implementation plan specifying who would implement what strategies, and by when; and (f) a specific plan for evaluating the extent to which the plan is being implemented, as well as plan effectiveness. A description of the individualized BSP strategies selected for each student participant is provided below. For a sample copy of a complete student BSP, see Appendix J.

Sebastian

Sebastian's school-based team (i.e., team leader, classroom teacher, and school counselor) met to review the descriptive FBA data and developed a BSP based on the Competing Behavior Model. For Sebastian, the FBA resulted in a hypothesis that during large- and small-group direct instruction lessons, when there was a lack of direct adult attention, he often engaged in off-task behavior (e.g., looking away from the speaker/materials, turning to the wrong page in the book being read, not engaging in choral reading) and talking out (e.g., asking questions, making unrelated comment, blurting out answers without raising his hand and getting permission) to gain adult attention.

The team decided to first teach Sebastian to raise his hand as an alternative way to obtain adult attention. Once he was successfully using the alternative behavior, the plan specified that Sebastian would be taught to wait to be called on for gradually increasing increments of time. Team-developed strategies to prevent Sebastian from engaging in problem behavior included having the classroom teaching in close proximity during whole-group instruction, providing frequent adult attention for positive and neutral behaviors, and placing a visual reminder to "raise hand" on his desk. To reward alternative and desired behaviors, Sebastian's team members chose the strategy of providing Sebastian with immediate descriptive adult praise and stickers on his sticker chart (already being used in the classroom) for raising his hand and displaying on-task behavior. Team members chose redirecting to the alternative behavior of raising his hand and minimizing adult attention as consequences for engaging in problem behavior.

Bailey

Bailey's FBA resulted in the hypothesis that during Reading, Math, and Writing when asked to complete academic tasks independently, he often engaged in off-task behavior (i.e., drawing pictures, getting out of seat without permission, "playing with"/manipulating objects) to escape/avoid nonpreferred academic tasks. After reviewing and agreeing on the information provided in the FBA report, Bailey's classroom teacher and the team leader used the FBA information to develop an individualized BSP.

To prevent the occurrence of problem behavior, team members decided that during independent work Bailey would be provided with (a) a self-monitoring checklist for reminding him of the explicit steps involved in completing his work, (b) a spiral notebook with prompts to help him keep track of his assignments, and (c) assignments with important text highlighted. Team members agreed to teach Bailey how to monitor his own academic engagement and to teach him how to take brief notes that could be used to later clarify assignments. The team also decided to teach Bailey how to appropriately raise his hand and request a brief break from academic tasks, which provided an alternative to engaging in problem behavior. Team-selected consequences for appropriate behavior included allowing Bailey to take a brief break when he asked appropriately and earning time to engage in preferred activities for staying on task during independent work. Consequence strategies for engaging in inappropriate behavior included reminding Bailey to ask for a break and, if the reminder was ineffective, requiring that he make up his work during a preferred activity such as art or recess.

Micah

Micah's school-based team consisted of the team leader, his classroom teacher, and the school principal. For Micah, the FBA data indicated that during "carpet time" when the teacher was instructing the whole group (i.e., not attending directly to the student), Micah frequently talked out, made noises with his mouth or hands, invaded the space of others (i.e., leaned on, touched/grabbed peers, teacher, or teaching materials), and/or got out of his seat without permission, resulting in teacher reprimands. Information

provided by staff and direct observation data indicated that the most likely function of Micah's problem behavior was to obtain adult attention.

Micah's team chose to use modeling of examples and nonexamples, along with multiple in situ practice opportunities, to teach him to raise his hand as an alternative way to obtain adult attention. Instructional strategies also included explicitly teaching Micah how to sit on the carpet appropriately during circle time. Team-developed strategies to prevent problem behavior included (a) putting a tape barrier on the carpet directly in front of the teacher to indicate where Micah was to sit, (b) providing frequent adult attention, and (c) reminding him on the way to the carpet what it looks like to "raise hand" and sit quietly. Consequence strategies chosen for responding to problem behavior included minimizing adult attention for problem behavior and sending the student to "time-out" away from the group until several seconds had passed with no problem behavior (or a maximum of 3 minutes). To reward alternative and desired behaviors, the teacher and team leader praised Micah and gave him a token. After receiving a set number of tokens, Micah was given a sticker and recognized by the teacher in front of the whole class.

Charlie

Charlie's FBA data showed that primarily when asked to complete work independently during Math and Writing, he often talked out, talked to and made faces at peers, got out of his seat and walked around the room without permission, and used materials inappropriately (e.g., putting marker caps in his nose) to obtain peer attention. It was also noted that his behavior was often worse on days when he was reprimanded for

his behavior on the bus or in the breakfast line before school. To provide an alternative to engaging in problem behavior, Charlie's team (i.e., the team leader and his classroom teacher) selected the behavior of raising his hand and asking to work quietly with a peer during independent work in order to obtain peer attention.

To prevent the occurrence of problem behavior, team members decided that on days when Charlie was reprimanded for his behavior on the bus or in the breakfast line before school, he would be given a preferred job or task to do with a peer before beginning work for the day. Other prevention strategies for Charlie included providing specific praise often in front of peers, and putting a point sheet on his desk and reminding him at the beginning of independent work that he could earn nonacademic time with peers for engaging in appropriate independent work behavior. In addition to earning time to interact with peers, another consequence strategy followed by the teacher involved allowing Charlie to complete academic work with a peer when he asked appropriately. When Charlie engaged in inappropriate behavior, it was decided that he would be reminded to use the alternative behavior and that peers would be reminded to ignore his problem behavior.

Gareth

The members of Gareth's school-based team were the team leader, the classroom teacher, and the school counselor. The FBA for Gareth resulted in the hypothesis that during large-group instruction in Math, when he sat beside peers on the carpet, Gareth often engaged in out-of-seat behavior (i.e., crawling around on carpet or standing up and

walking around), talked out without raising his hand, talked to and made faces at peers, and made noises to obtain peer attention. Gareth's team provided alternate ways of obtaining peer attention by teaching him how to complete a variety of class jobs (e.g., passing out worksheets/materials, leading choral responding) at the beginning of or during whole-group math instruction. To prevent problem behavior from occurring, the team decided to have him sit on the carpet in front of the teacher with at least an arm's length of space between him and his peers, and to remind the whole group of carpet-time expectations at the beginning of the math lesson. To reinforce appropriate alternative and desired behaviors, Gareth earned stickers that could be traded in for extra recess time for the whole class. The consequence strategy used to address Gareth's inappropriate behavior involved teaching his peers to ignore such behavior.

Jessie

Jessie's FBA data indicated that during small-group reading instruction in the resource classroom, when the teacher was attending to other students or when several minutes had passed without 1:1 attention, Jessie often engaged in talking-out behavior (i.e., making comments without raising his hand, arguing with the teacher following verbal reprimand for talk-outs) and left his seat without permission in order to obtain adult attention. Jessie's team (consisting of the team leader, the resource teacher, and the school psychologist) chose the skill of raising hand and waiting quietly to be called on as an alternative for getting adult attention.

Team-selected strategies for preventing the occurrence of Jessie's problem behavior included (a) providing him with a visual cue card to remind him to raise his hand; (b) providing frequent, specific adult praise at least every 2 to 3 minutes; and (c) providing scheduled frequent breaks to complete a small task or job with an adult. When Jessie engaged in appropriate behavior his plan specified that he was to receive immediate adult praise along with points that could be exchanged at the end of the school day for 5 minutes to play a game or engage in other preferred activity with the teacher. In response to problem behavior, the plan included the strategies of providing a reminder to raise his hand or asking him to take a 30-second time-out by putting his head down on the desk. Jessie's BSP strategies also included a "crisis plan" specifying that if his behavior became too disruptive to other students, he would be required to sit alone at a table in the back of the classroom.

Contextual Fit

Upon completion of **e**ach BSP, team members rated the extent to which they felt the plans were contextually appropriate using the *Self-Assessment of Contextual Fit in Schools* (Horner et al., 2003). The assessment included 16 items organized into eight domain areas: knowledge of the elements of the plan, skills needed to implement the plan, values reflected in the plan, resources available to implement the plan, administrative support, effectiveness of the plan, whether the plan is in the best interest of the student, and whether the plan would be efficient to implement. Each domain area included two related items rated on a 6-point Likert scale (1 = strongly disagree, 2 = disagree, 3 =

slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree), with a range of possible scores for each domain of 2 to 12 points. Table 5 shows the average number of points awarded by team members in each domain area.

TABLE 5. Contextual Fit Ratings

Domain	*Mean*	*SD*	Min	Max
1. Knowledge of elements in the BSP	11.87	.52	10.00	12.00
2. Skills needed to implement the BSP	11.73	.59	10.00	12.00
3. Values are consistent with the elements of the BSP	11.80	.56	10.00	12.00
4. Resources available to implement the BSP	10.93	.88	10.00	12.00
5. Administrative support	10.87	1.25	9.00	12.00
6. Effectiveness of BSP	11.13	1.06	9.00	12.00
7. The BSP is in the best interest of the student	11.80	.56	10.00	12.00
8. The BSP is efficient to implement	11.13	1.06	9.00	12.00

Note. N = 16. Possible scores for each domain area ranged from 2-12, with higher scores indicating higher perceived contextual fit.

The range of total possible scores on the *Self-Assessment of Contextual Fit in Schools* was 16 to 96 points. Team member scores were averaged, resulting in one score for contextual fit awarded for each BSP. The average contextual fit score for the team-developed BSPs was 92 points, with a range of 89 to 93 points. These scores indicate that overall implementers perceived the team-developed plans as having a high degree of contextual fit, with the lowest scores relating to their perceptions of administrative support and adequate available resources.

Technical Adequacy

To rate the technical adequacy of each of the BSPs, two experts in the area of Function Based Support were recruited to evaluate the plans using the *BSP Critical Features Checklist*. The checklist prompted the rater to indicate whether each BSP included (a) an operational description of the problem behavior, (b) strategies for preventing the problem behavior, (c) instructional strategies for teaching alternative and desired behavior(s), (d) strategies for minimizing reinforcement for problem behavior and maximizing reinforcement for alternative and desired behaviors, and (e) a plan for implementing the BSP strategies and for evaluating the fidelity of implementation and effects on student behavior. The checklist also asked the scorer to indicate whether the preventive, teaching, and consequence strategies developed by the team were indicated by the results of the FBA (i.e., were function-based). Both expert panel members used the BSP checklist to score each student BSP from zero to 20. Scores were averaged across experts so that each BSP was ultimately awarded one score for technical adequacy. The average score on the *BSP Critical Features Checklist* for each team-developed BSP was 19.90 points, with a range of 19 to 20 total points.

Direct Observation Data

Direct observation data were collected during 20-minute classroom observation sessions for Sebastian, Bailey, Micah, Charlie, and Gareth (direct observations were not conducted for Jessie due to lack of parental consent). Figures 3 and 4 summarize the results for problem behavior, academic engagement, and fidelity of implementation for

each of the BSP strategies that classroom staff followed for the five students. Data were collected using a nonconcurrent multiple-baseline design with Sebastian starting baseline in Session 1 of the study, Micah starting baseline in Session 6, Garth beginning baseline in Session 13 of the study, and Charlie and Bailey starting baseline in Session 16. All 10-second partial interval data for student problem behavior and academic engagement were visually analyzed for (a) changes in level, trend, and variability of data within and across baseline and intervention phases; (b) immediacy of effect between phases; (c) overlapping data across phases; and (d) consistency of data patterns in similar phases across participants.

Problem Behavior

Figure 3 shows the percentage of 10-second intervals with problem behavior during baseline and intervention for each of the five student participants, as well as the percentage of BSP components implemented with fidelity by the student's classroom teachers.

Sebastian

Following the implementation of Sebastian's BSP strategies, there was as an immediate and consistent change in trend and decrease in level for off-task behavior. The data also show an immediate and consistent decrease in the percentage of intervals with talk-outs as compared to baseline. The mean percentage of intervals with off-task

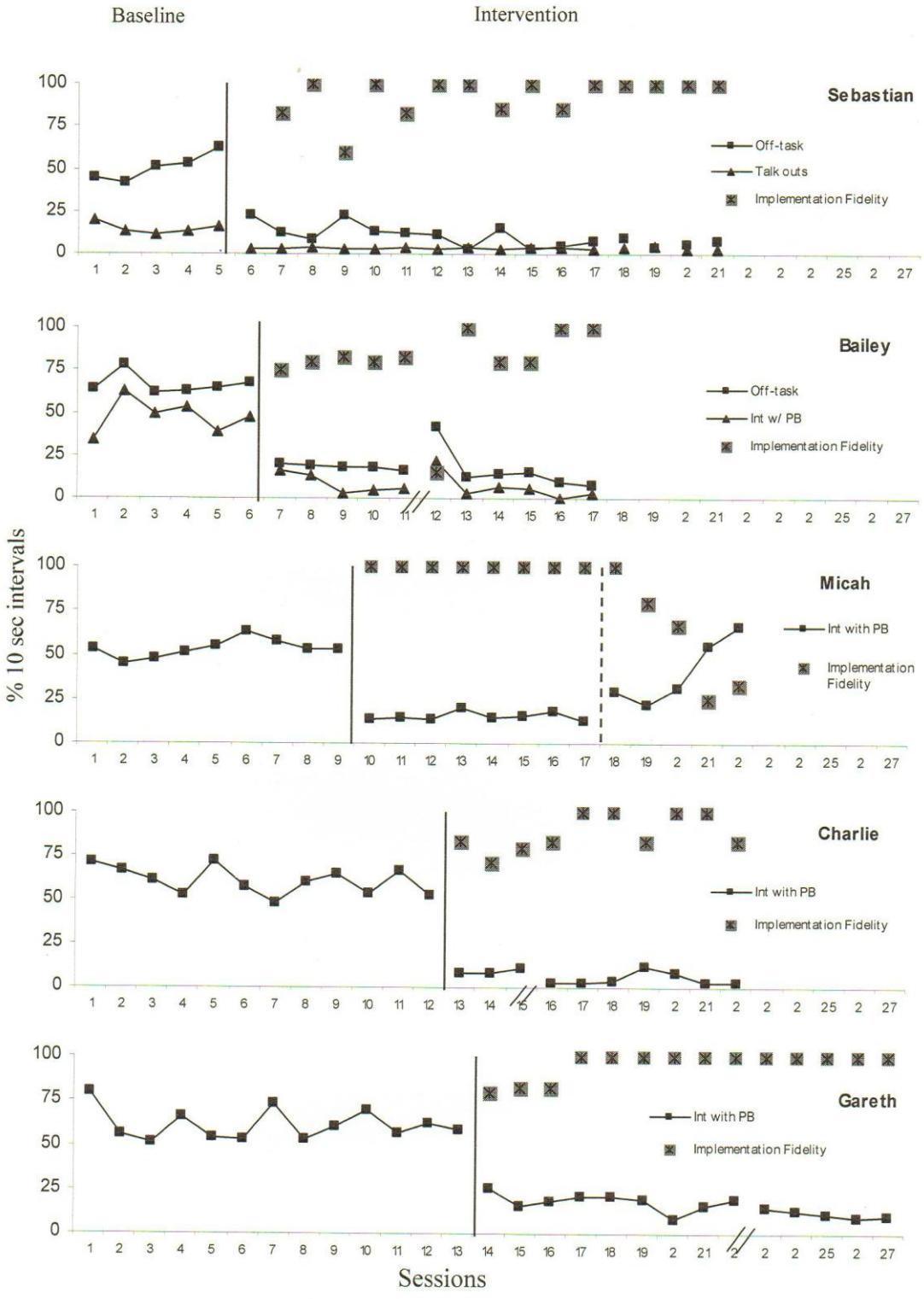


FIGURE 3. Percentage of 10-second intervals with problem behavior and percentage of BSP strategies observed during 20-minute sessions.

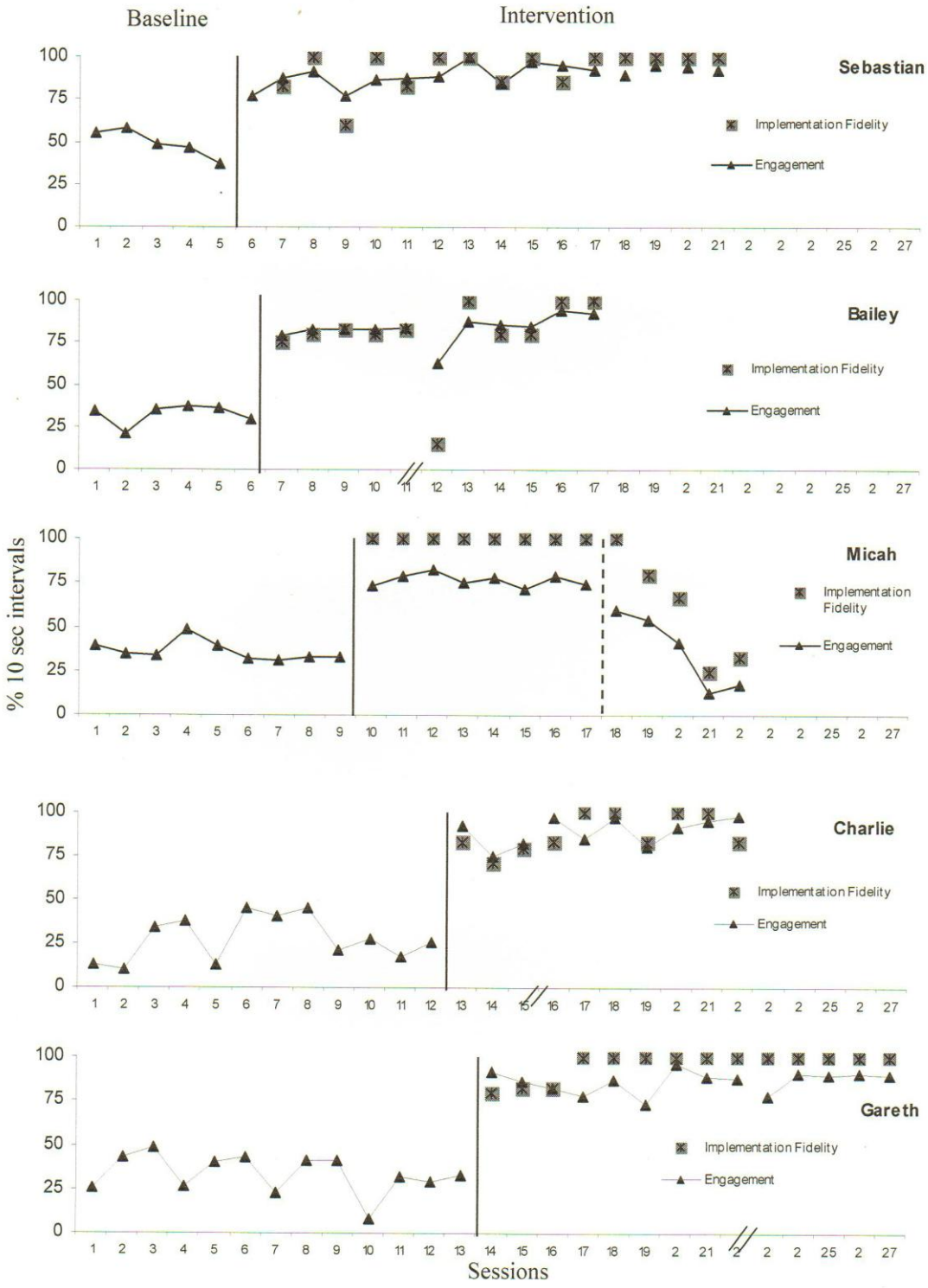


FIGURE 4. Percentage of 10-second intervals with academic engagement and percentage of BSP strategies observed during 20-minute sessions.

behavior during 20-minute baseline observations was 51% (range: 42% to 63%), with the data pattern showing a steady increasing trend. The mean percentage of intervals with talk-outs during baseline was 15% (range: 11% to 20%). The mean percentage of intervals with off-task behavior during 20-minute intervention sessions was 9% (range: 3% to 23%), and the mean percentage of intervals with talk-outs was 4% (range: 3% to 5%). The percentage of nonoverlapping data points between baseline and intervention conditions was 100% for both talk-outs and off-task behavior. Fidelity of implementation of BSP components by Sebastian's classroom teacher during intervention averaged 93%.

Bailey

Bailey's direct observation data demonstrate an immediate change in trend and level for off-task behavior and an immediate and consistent change in level for intervals with problem behavior from baseline to intervention, with the exception of a spike in Bailey's problem behavior in Session 12. Session 12 occurred on the first day the student returned from spring vacation and also corresponded with a significant decrease in fidelity of implementation of the BSP by the classroom teacher. Off-task behavior averaged 67% of intervals (range: 62% to 78%) during 20-minute baseline observations, and the average percentage of intervals with problem behavior in baseline was 48% (range: 34% to 63%). The mean percentage of off-task behavior during 20-minute intervention sessions was 17% (range: 8% to 42%), and the mean percentage of intervals with problem behavior was 8% (range: 0% to 22%). The percentage of nonoverlapping data between baseline and intervention conditions was 100% for both off-task and

problem behavior. Fidelity of implementation of BSP components by Bailey's classroom teacher during intervention averaged 80%.

Micah

Following the implementation of Micah's BSP strategies, there was as an immediate decrease in the level of problem behavior as compared to baseline. The mean level of occurrence for problem behavior during baseline observations was 53% of intervals, with a range from 45% to 65% of intervals. During the first eight sessions in the intervention condition, the mean level of occurrence for problem behavior was 16% of intervals (range: 13% to 20%), and the percentage of nonoverlapping data was 100%. In Session 18, there was a change in teaching staff (represented in the graph by a broken phase change line). Session 18 represents the last session in which the original teacher who aided in the development of the BSP was present in the classroom (i.e., the new teacher was providing instruction to the class, while the original teacher observed). During Sessions 19-22, the original teacher was no longer present in the classroom. Following this change in classroom staff, the mean level of occurrence for problem behavior was 36% of intervals (range: 22% to 66%), and the percentage of nonoverlapping data was 60%. Fidelity of implementation of BSP components by Micah's original classroom teacher (i.e., the teacher who received training from the team leader) during the intervention condition averaged 100%. Fidelity of implementation of BSP components by the new classroom teacher averaged 51%.

Charlie

Charlie's data show an immediate and consistent decrease in the level of problem behavior following the implementation of the team-developed BSP strategies. The average percentage of intervals with problem behavior during the baseline condition was 61% (range: 53% to 72%). The mean level of problem behavior during intervention sessions was 6% (range: 3% to 12%). The percentage of nonoverlapping data points between baseline and intervention phases was 100%. Fidelity of implementation of BSP components by Charlie's classroom teacher averaged 88%.

Gareth

Following the implementation of Gareth's BSP strategies, there was as an immediate and consistent decrease in the level of problem behavior as compared to the baseline condition. The mean level of off-task behavior during baseline was 51% (range: 42% to 63%). The mean level of problem behavior during intervention sessions was 9% (range: 3% to 23%). The percentage of nonoverlapping data points between baseline and intervention conditions was 100% for problem behavior. Fidelity of implementation of BSP components by Gareth's classroom teacher during intervention averaged 93%.

Academic Engagement

The results for academic engagement are provided in Figure 4. During the baseline condition, Sebastian was academically engaged for an average of 54% of intervals (range: 37% to 58%). Data for Sebastian document a steady decreasing trend for

academic engagement prior to implementation of the BSP. For Bailey, academic engagement averaged 32% (range: 21% to 37%) prior to intervention. Academic engagement for Micah averaged 36% (range: 31% to 49%) in the baseline condition. For Charlie, data during the baseline condition show some variability, with academic engagement averaging 28% (range: 13% to 45%). Academic engagement for Gareth was somewhat variable, with a fairly stable trend line during baseline, averaging 33% of intervals, with a range of 33% to 49%.

Following implementation of the team-developed BSP strategies, the data show an immediate increase in the percentage of intervals with academic engagement for all five participants. For Sebastian, academic engagement increased to 91% of intervals (range: 77% to100%) during the intervention phase. For Bailey, academic engagement increased to an average of 86% of intervals with a range of 79% to 94%, excluding one session at 63% that corresponded to low rates of fidelity of implementation by staff. Academic engagement for Micah averaged 77% (range: 73% to 83%) of intervals during the first eight sessions of intervention. During intervention sessions that corresponded with a change in classroom teacher and decreased implementation fidelity, academic engagement for Micah decreased to 43%, with a range from 13% to 54%. Charlie's level of academic engagement in the intervention condition averaged 90% (range: 75% to 98%), and for Gareth academic engagement in this condition averaged 87% (range: 73% to 96%).

Social Validity

At the conclusion of the study, team leaders who completed Phases II and III were given questionnaires to identify the level of acceptability of the FBFP training and procedures. The Team Leader Acceptability Rating Profile (Appendix K) consisted of seven questions concerning the acceptability of the training, materials, and procedures used by the team leaders to complete the FPFB process. Participants were asked to rate the items using a 6-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree). The results from these questionnaires are presented in Table 6.

TABLE 6. Team Leader Acceptability Ratings

Item	*Mean*	*SD*	Min	Max
1. The "From 'Basic FBA' to BSP" training I received equipped me for developing a BSP with team members in my school.	5.67	.52	5.00	6.00
2. I plan to use these BSP procedures in the future with other students for whom a BSP would be appropriate.	5.83	.41	5.00	6.00
3. I would suggest this training to other school professionals needing to learn to develop BSPs.	5.67	.52	5.00	6.00
4. The tools used within the BSP development process were relatively easy to use.	5.67	.52	5.00	6.00
5. The time spent developing the BSP was reasonable.	5.50	.84	4.00	6.00
6. I feel confident that I can lead behavior support team members in the development of BSPs that address the function of student problem behavior.	5.50	.55	5.00	6.00
7. Overall, the experience in using the "From 'Basic FBA' to BSP" methods was beneficial for me.	5.83	.41	5.00	6.00

Note. N = 6. Likert Scale for participant responses ranged from 1 = strongly disagree to 6 = strongly agree.

Participating classroom teachers also completed a seven-item acceptability questionnaire. The Classroom Teacher Acceptability Rating Profile (Appendix L) consisted of 6-point Likert scale items related to the extent to which their involvement in the FPFB process was acceptable, as well as the extent to which they found the BSP strategies acceptable, feasible, *and* effective in changing student behavior. Table 7 shows the results of the teacher acceptability rating questionnaires.

TABLE 7. Teacher Acceptability Ratings

Item	*Mean*	*SD*	Min	Max
8. The time spent developing the BSP with the behavior support team was reasonable.	5.67	.52	5.00	6.00
9. The intervention strategies are acceptable and appropriate for use in my classroom.	5.50	.55	5.00	6.00
10. The student's problem behaviors decreased when we began implementing the BSP.	5.17	.75	4.00	6.00
11. The student's appropriate classroom behaviors increased when we began implementing the BSP.	5.50	.55	5.00	6.00
12. My participation in implementing the BSP required a reasonable amount of time and effort.	5.33	.82	4.00	6.00
13. My participation in BSP development and implementation for this student was worth my time and effort.	5.50	.55	5.00	6.00
14. I will continue to use the BSP intervention procedures.	5.67	.52	5.00	6.00

Note. $N = 6$. Likert Scale for participant responses ranged from 1 = strongly disagree to 6 = strongly agree.

CHAPTER IV

DISCUSSION

Many professionals in schools continue to view FBA/BSP as appropriate for only a small number of students with the most severe challenging behaviors (Scott et al., 2010; Scott et al., 2005). However, for schools to develop the capacity to most effectively utilize FBA/BSP technology, more school personnel need an understanding of how to use FBA information to develop behavior support for students at the first signs of persistent problem behavior (Cook et al., 2012). Additionally, school staff need to be trained to identify the conditions under which efficient versus comprehensive FBA/BSP procedures are appropriate (Loman & Horner, 2012). For schools to accomplish this with ever-dwindling resources, they must implement effective and efficient instructional strategies that provide training in FBA/BSP procedures in school contexts. This study sought to document the efficacy of a 4-hour training series focused on teaching school-based personnel to lead teams in using FBA information to build BSPs for students with mild to moderate problem behavior. In this chapter, the results of the study are summarized and interpretations of the findings are presented. The limitations of the current study are also discussed, along with implications for practice and directions for future research.

BSP Knowledge Assessment

In the first phase of the study, each team leader completed the BSP Knowledge Assessment prior to the first session of the FBFBA training series and upon completion of

the final session. The pretraining assessment results suggest that despite having some background in developing BSPs (12 of the 13 team leaders reported that they had at least helped other school professionals build BSPs within the past 2 years) and self-reported knowledge of behavioral theory (average of 4.0 on a scale of 5), only one of the participating team leaders had a sufficient grasp of the knowledge and skills necessary to develop function-based supports (as indicated by a score of 80% or above on the pretest assessment). Following training, the average test score was 88%, with an average gain of 26%. The overall average gain from pretest to posttest for each participant indicates that all team leaders gained knowledge related to the development of BSPs for students with mild to moderate problem behavior from the beginning to the end of the FBFBA training series.

It should be noted that only six of the 13 team leaders who participated in the trainings went on to lead a school-based team in the development of a student BSP for this study. Therefore, due to their lack of participation in subsequent phases of the study, it was not possible to conclude how efficacious the training was for the remaining seven team leaders beyond the suggested increase in theoretical knowledge. However, it is also important to note that the team leaders who *did* continue on to lead school-based teams were able to correctly identify students who fit the criteria for exhibiting "mild to moderate" problem behavior as defined in the FBFBA training sessions (i.e., none of these participants identified students who exhibited dangerous behaviors or behaviors that were pervasive throughout the school day). This outcome suggests that these team leaders

learned to recognize the conditions under which a basic or "practical" BSP versus a more comprehensive BSP is required for an individual student.

BSP Technical Adequacy and Contextual Fit

In Phase II, the extent to which BSPs developed by participating school teams were technically adequate (i.e., contained all critical BSP features and strategies that were indicated by the FBA) and contextually appropriate (i.e., rated as feasible and appropriate for use in the classroom setting) was assessed. The results of survey ratings for each BSP indicated that following training, the six participating team leaders who continued on to the second phase of the study were able to return to their schools and lead their respective teams in the development of student BSPs that were both technically adequate and contextually appropriate. Completed BSPs were scored for technical adequacy by the members of the expert panel using the 20-item BSP Critical Features Checklist. The checklist assessed the extent to which each plan included (a) an operational description of the problem behavior: (b) preventive, teaching, and consequence strategies consistent with the function of the problem behavior as identified in the FBA; and (c) a plan for implementing the BSP strategies and for evaluating the effects of the plan on student behavior. Both experts rated all of the team-developed plans as having a high degree of technical adequacy (i.e., the average score was 19.90 out of 20 possible points).

In addition to being scored for technical adequacy, student plans were scored by the members of that student's BSP team (each of which included the classroom staff responsible for implementing the plan) using the *Self-Assessment of Contextual Fit in*

Schools. Research has demonstrated that interventions viewed by implementers to reflect their skills, values, and resources are more likely to be implemented with fidelity, and more likely to affect behavior change (Benazzi et al., 2006; Cook et al., 2012). The results of this study show that the team-developed plans were scored as having a high degree of "contextual fit," meaning that plan developers all agreed that (a) they had knowledge of the elements of the plan and the skills needed to implement the plan; (b) the plan reflected their values; (c) they had the available resources and administrative support to implement the plan; and (d) the plan was effective, efficient, and in the best interest of the student.

Student Problem Behavior and Academic Engagement

During the third phase of the study, a nonconcurrent multiple-baseline design was used to examine the effects of school-based teams' function-based BSP strategies on student problem behavior and academic engagement in general education classrooms. Trained observers collected direct observation data on student problem behavior and academic engagement during 20-minute observation sessions 3 to 5 days per week in baseline and intervention conditions. Direct observation data were also collected on the percentage of BSP steps completed by classroom staff during all 20-minute intervention sessions.

Direct observation data from this phase document an immediate and consistent decrease in problem behavior and increase in academic engagement following the introduction of the team-developed BSP strategies by teaching staff, with no overlapping

data between baseline and intervention phases for all five student participants. These results suggest a functional relationship between the implementation of the BSP strategies and improvement in student behavior. Further evidence of experimental control was demonstrated when fidelity of implementation of the BSP strategies decreased for two of the participants. Overall, fidelity of plan implementation by classroom staff was high, averaging over 80%. However, during one intervention session, BSP implementation by Bailey's teacher dropped to below 25%. This decrease corresponded with an immediate and significant increase in Bailey's problem behavior and decrease in academic engagement. The following session, the staff 's implementation of the steps in Bailey's plan returned to 100%, and problem behavior and academic engagement returned to average intervention levels. Another example of this was seen when there was a change of teaching staff for Micah. When the teacher who had been trained by the team leader was no longer present in the classroom, fidelity of plan implementation decreased significantly (i.e., dropped to below 50%) and problem behavior and academic engagement quickly returned to baseline levels.

Social Validity

Social validity is not sufficient, but is absolutely necessary to the effectiveness and sustainability of interventions in applied settings. The primary purpose of measuring social validity is to predict, and ultimately to prevent, the rejection of behavior change interventions by typical stakeholders (Schwartz & Baer, 1991). The results of the acceptability ratings completed at the end of this study suggest that the FBFBA

procedures were considered socially valid by both team leaders who helped develop student plans and the teachers who implemented the BSP strategies in their classrooms.

The participants overall agreed (an average score of 5 or above) with all of the statements in the acceptability rating questionnaires. Team leaders agreed that (a) the FBFBA experience was beneficial and prepared them to lead school-based teams in the development of student BSPs, (b) the tools provided in the trainings were easy to use, (c) the time spent developing the plan was reasonable, and (d) they would recommend the FBFBA training to other professionals. All classroom teachers who implemented the BSP strategies developed for student participants reported that (a) the time spent developing the BSP with the behavior support team and implementing the BSP strategies was reasonable and worth the effort; (b) the intervention strategies were acceptable and appropriate for use in their classrooms; and (c) after the team began using the BSP strategies, student problem behavior decreased and appropriate classroom behaviors increased.

Perhaps the most important outcome from the social validity measures was that members of each of the participant groups indicated they would continue to use the FBFBA methods after the research study ended. The best indicator of social validity is the continued use of behavioral programs by newly trained interventionists once researchers have removed formal supports (Baer, Wolf, & Risley, 1987). All participating classroom teachers reported that, following the conclusion of the formal research study, they would continue to use the team-developed BSP intervention procedures for the student participants. Additionally, each of the six team leaders agreed that they would continue to

use the methods learned in the FBFBA training series. Moreover, four of the six team leaders reported that since the training series, they had used the FBFBA methods in developing a BSP for at least one student not targeted as part of the study. Two of the six team leaders reported having already used the methods learned in training to develop plans for more than two students not targeted as part of the study.

Implications for Practice

Studies have shown that, due in large part to a shortage of trained personnel, schools continue to experience difficulties in applying best practices in FBA technology to the development of behavioral supports (Cook et al., 2007; Hawken et al., 2008; Scott et al., 2010). This has led a number of researchers to advocate for a proactive approach to FBA-BSP that includes training typical school-based team members to develop function-based supports for students who engage in persistent mild to moderate problem behaviors (e.g., Broussard & Northrup, 1997; Browning-Wright et al., 2007; Park, 2007; Renshaw et al., 2008; Scott, Liaupsin, et al., 2003; Scott et al., 2005). The current study presents preliminary findings supporting the efficacy of a 4-hour training series designed to teach typical school personnel to lead behavior support teams in using FBA data to develop efficient and effective BSPs for students who exhibit persistent problem behaviors that do not pose a danger to themselves or others. Study findings also highlight the advantages of (a) using a team-based approach to BSP development, (b) including at least one team member with an understanding of behavioral theory, and (c) developing a multicomponent BSP derived from the competing behavior model.

Each of the participating team leaders were reported by district-level support staff to have received training related to FBA and function-based support prior to completing the FBFBA training series. An assessment of behavioral knowledge indicated that each of the participants possessed conceptual knowledge related to basic behavioral principles, and a self-assessment measure demonstrated that each participating team leader believed that he or she had a relatively high degree of knowledge related to basic behavioral concepts and theory. However, on the BSP Knowledge Assessment pretest all but one of the participating team leaders failed to demonstrate the key skills needed to transform that knowledge into complete, function-based plans for students with challenging behavior. These data highlight the importance of building specific behavioral objectives into school-based professional development related to FBA-BSP, and suggest that school personnel should be expected to demonstrate some level of fluency with these skills before being given the responsibility of building function-based support for students.

The results of the BSP Knowledge Assessment posttest suggested that throughout the FBFBA trainings all participating school personnel (i.e., "team leaders") gained knowledge related to (a) the necessary components of student BSPs; and (b) the effective use of the information presented in an FBA summary statement to identify behavior change strategies that are function-based, neutral, and contraindicated. Following training, six team leaders went on to lead teams in the development of student BSPs that were rated as contextually appropriate by behavior support team members and technically adequate by an independent expert panel. Finally, the most convincing evidence supporting the efficacy of training typical school personnel to lead team-based BSP

development was the demonstrated effectiveness of the team-developed BSP strategies in reducing problem behavior and increasing academic engagement for student participants.

This study provides an example of how the complex task of BSP development, which has typically been completed by individuals with extensive knowledge of behavior analytic principles (e.g., outside experts, school psychologists), can be adapted for use by typical school personnel. The methods used in the study were built on the logic that schools can use FBA-BSP technology more effectively by developing the capacity to proactively support more students with effective function-based interventions. Using the tools and procedures presented in the FBFBA training model, typical school-based teams may be able to utilize FBA information to develop relatively efficient BSPs for students who have not yet been identified as needing intensive individualized supports, thereby preventing problem behavior from reaching critical levels and decreasing the number of students requiring more resource-intensive support.

The tools presented in the FBFBA training series are in no way intended to replace or lessen the need for district-level professionals with extensive behavioral knowledge, but rather suggest a restructured role for district specialists to make more efficient use of their time and expertise. Specifically, district-level behavior specialists and school psychologists (or other individuals) well-versed in FBA/BSP can use the FBFBA procedures to train school-based personnel with a basic understanding of behavioral theory and the FBA process to lead teams in BSP development for students with mild to moderate problem behavior. Using this model, districts would allocate a significant portion (e.g., one fourth to one third) of the district-level specialist's time to

training qualified school-based personnel in basic FBA-BSP procedures. Increasing the number of individuals in a district who can aid in the development and implementation of function-based supports for students with less severe problem behaviors would (a) allow more students to benefit from effective function-based supports at the first signs of persistent problem behavior, and (b) provide district behavior specialists more time to develop comprehensive function-based interventions for students requiring intensive individualized supports.

In addition to redefining the role of the district-level behavior specialist, this approach also suggests a need for a more complete understanding of how to best structure school-based behavior support teams to address a range of behavioral concerns. Schools implementing all three tiers of SWPBIS typically have two levels of teams: (a) a core "school-wide" team that meets regularly to review data and identify times of the day, locations, and individual students who may need additional support; and (b) an "action team" that is responsible for designing individualized supports for students referred by the school-wide team (Sugai et al., 2005). In utilizing a proactive approach to FBA-BSP, there would be two distinct types of action teams: (a) an action team made up exclusively of campus-based professionals for students who require basic FBA-BSP procedures, and (b) a second type of action team that would include a district level specialist for students who require more intensive behavior support. Before referring a student to the action team, the school-wide team would document: how often the behavior occurs, the number of contexts in which the behavior occurs, and the severity of the problem behavior (i.e., whether or not the behavior is dangerous to the student or others). That information

would then be used to determine the individuals who should make up the student-level team in order to utilize the most efficient procedures necessary to create an effective BSP.

Limitations

There are several limitations that should be considered when interpreting the outcomes of the present study. The first limitation of note is the small sample size and the nonrandom selection of study participants. School professional participants were all from the same school district and met the criteria of having job responsibilities that included the development of student behavior support plans. It should also be noted that the six Team Leaders who continued on to Phases II and III of the study did so on a voluntary basis. This self-selection represents a significant threat to external validity, as it is unclear how these participants differ from those who chose not to continue on to subsequent study phases. Furthermore, all participants within this study were employed by or students within schools that had been implementing SWPBIS for a number of years. More research is needed to determine the extent to which study findings can be generalized to individuals with characteristics that differ from those of study participants, and/or who work in or are students in schools not currently implementing SWPBIS.

Additionally, it is important to note that four of the six participating team leaders who went on to develop BSPs for the second phase of the study stated that they had prior training related to FBA within the past 2 years, and all but one reported having at least helped to develop a BSP with other professionals in their school within the past 2 years. Due to the nature of the background questions, it was not clear how much training

specifically related to BSP development participants had received prior to attending the FBFBA trainings. Also, participants were not directly asked if they had prior experience using the similar tools presented in the FBFBA trainings. Therefore, their ability to develop student plans may have been influenced by previous training experiences and exposure to the tools utilized in the training series.

Another limitation of the study is that all of the FBFBA training sessions were conducted by the principal investigator, who had extensive training in FBA and BSP development and had provided a variety of school professionals with a number of training series on using FBA to develop function-based supports for students with persistent problem behaviors. Therefore, further research is needed to assess the generalizability of this study's findings by evaluating whether typical school-based professionals well-versed in FBA/BSP can utilize the FBFBA materials to effectively train school personnel to lead BSP teams. Also, the researcher completed several FBA teacher interviews, conducted initial student observations, and collected interobserver agreement data as a second observer; therefore, the validity of the study results may be limited by reactivity of participating students and teachers to the presence of the researcher in the classroom.

The measurement of team leader knowledge of BSP development also represents a potential limitation of the current study. The content of the *BSP Knowledge Assessment* was designed by the author to evaluate team leader knowledge of critical BSP components and ability to discriminate between interventions that are function-based, neutral, or contraindicated when given sample problem behavior scenarios. Prior to the beginning of the study, the knowledge assessment was expert-reviewed for content

validity and field-tested to demonstrate sensitivity with a school professional fitting the study inclusion criteria. Additionally, two versions of the *BSP Knowledge Assessment* were developed and counterbalanced across groups of participants to control for learning effects. However, the psychometric properties of this assessment have not been evaluated; therefore, the resulting outcomes should be interpreted with caution.

A final limitation to the findings of the study relates to the study design. The original design called for a concurrent multiple baseline. However, a nonconcurrent multiple-baseline design was necessitated because of the availability of participants in the school contexts where the study took place and the timing of BSP development by the school-based teams. Concurrent multiple-baseline designs control for threats to internal validity by documenting similar behaviors in baseline and by documenting change in only one participant following intervention while other participants continue to engage in consistent patterns of responding. While the nonconcurrent multiple-baseline design does control for the length of time spent in the baseline condition, it does not control for other threats to internal validity. Although this does represent a limitation, in this study the power of the nonconcurrent multiple-baseline design was enhanced by the inclusion of five demonstrations of effect, as opposed to the required three demonstrations to document a functional relation (Horner, Carr, et al., 2005).

Future Research

Current research clearly demonstrates that simply providing school-based behavior support teams with FBA information is not sufficient to ensure that BSP

development will be guided by FBA results (Benazzi et al., 2006; Cook et al., 2007; Scott et al., 2005; Scott & Kamps, 2007; Van Acker et al., 2005). It has been suggested that in order for the FBA-BSP process to be effectively and efficiently applied in schools, more school-based professionals need an understanding of the steps necessary to successfully use FBA information to develop behavior support for students in schools (Browning-Wright et al., 2007; Park, 2007). Yet, to date, surprisingly few empirical studies have examined methods for systematically and efficiently training typical school personnel to use FBA information when developing behavior support for students (Conroy et al., 2009; Scott et al., 2010). This research study provides preliminary results demonstrating how a 4-hour training series was used to teach typical school professionals the skills needed to lead school-based behavior support teams in the development of BSPs for students with mild to moderate problem behaviors. The direct observation data present the strongest and most convincing evidence of the efficacy of training typical school staff to lead teams in BSP development for students with mild to moderate problem behavior. The data gathered using indirect measures are promising but, due to obvious limitations, should not be interpreted too liberally.

As previously stated, one of the limitations of the study was the use of a nonconcurrent multiple-baseline design. This design does not control for threats to internal validity as effectively as a concurrent multiple-baseline design, which would have better allowed for phase comparison of baseline and intervention responding within and between individuals (Kennedy, 2005). Replicating the methods used in this study

employing a concurrent multiple-baseline design would provide the opportunity to establish more convincing experimental control across participants and phases.

In addition, systematic replication of this study is needed to improve external validity of findings for other participant groups, interventionists, and settings. The results of this study represent positive outcomes for 13 school professionals and five student participants, all from within one school district. All student participants were males between the ages of 5 and 11, and only one student participant was receiving special education services at the time of the study. Additionally, all training sessions were conducted by the author, who has had extensive training in behavioral theory and applied experience developing and training others to implement function-based support for individuals with a wide range of challenging behaviors. Future replications and extensions, including larger participant samples, students from diverse backgrounds and with varying educational and behavioral needs, female students, different age groups (e.g., preschool and middle school students), and using typical school professionals as FBFBA trainers, would allow for greater generalization of results to other participant populations. Differentiation of effects by student age, grade level, and characteristics would also be helpful in identifying student groups for whom basic BSP procedures are most effective, allowing practitioners and administrators to maximize efficiency of supports.

In order to be considered effective and socially important, behavioral gains must maintain over time and translate into lifestyle changes that extend beyond the research context to all relevant aspects of an individual's life (Carr et al., 2002). The length of the

intervention phase for student participants provided the researcher with enough direct observation data to experimentally demonstrate the effect of the team-developed BSP strategies on student behavior in the classroom setting. However, data were not collected on generalized effects of the intervention or the maintenance of treatment effects following the conclusion of the research study. Although the results suggest that school-based teams were able to develop student plans that effectively resulted in a reduction in student problem behavior and increased academic engagement, further investigation is needed to demonstrate the long-term behavioral outcomes associated with the implementation of team-developed Basic BSP strategies. Future studies should also include systematic procedures for actively programming for generalization of newly learned alternative and desired behaviors, as well as observation sessions in additional settings and during times of the day when the BSP strategies are not being implemented. This would allow for a more complete understanding of behavior change.

Also of interest would be an analysis of the individual components of the FBFBA training series that are necessary and sufficient to produce desired outcomes for participating school professionals, as well as an investigation comparing different formats for providing the FBFBA trainings. Specifically, future research should seek to determine if there are ways to increase the cost-effectiveness of the training series for school districts. For example, would it be more fiscally advantageous for districts to provide some aspects of the training series, or training "booster" sessions, using on-line training and progress-monitoring materials, and could this be accomplished without diminishing the effectiveness of the trainings?

Additional studies might also include an analysis of the specific strategies that school-teams use when developing efficient BSPs for students with mild to moderate challenging behavior. One unique aspect of the FBFBA training series is that along with providing training related to the critical features of function-based support plans, the training materials also include instruction related to and opportunities to practice the specific steps used to guide a behavior support team through the process of BSP development. Although participating team leaders were able to successfully lead their respective teams in the development of technically adequate, contextually relevant BSPs, the present investigation did not include direct observations of the actual team-based planning process. Using the school-based team as the unit of analysis, future studies could seek to further operationalize, train, and document the extent to which team members utilize efficient problem-solving behaviors for moving from FBA information to effective function-based support.

Finally, although experts and researchers have now recommended for a number of years that schools utilize a proactive model of FBA-BSP to intervene at the first signs of persistent problem behavior (Scott et al., 2010), there is a dearth of empirical research documenting (a) the most efficacious and efficient methods for making use of this type of approach in school settings, and (b) the long-term outcomes related to using this type of preventive model. Thus, future investigations should also include a large-scale randomized controlled study to determine if, over time, school districts utilizing a proactive approach to FBA-BSP that includes training typical school personnel to lead teams in the development of function-based BSPs for students exhibiting mild to

moderate challenging behaviors experience (a) an overall increase in the number of students receiving function-based support, (b) a decrease in the number of students requiring more intensive individualized interventions, and (c) improved behavioral and academic outcomes for students.

In conclusion, the findings presented herein signify a small step toward the development of a proactive approach for utilizing best practices of FBA-BSP in school settings. The results of this study present promising evidence that training typical school-based professionals to lead teams in designing function-based support plans can lead to the development of technically adequate, contextually relevant BSPs that effectively produce improvements in student behavior. More empirical data are needed to (a) replicate the findings of this study for participants with varying characteristics, (b) better understand the necessary and sufficient components of the school-based training series, and (c) document longitudinal student outcomes. Yet, the findings from this study represent an important contribution to our understanding of how to effectively and efficiently develop and implement function-based support to enhance behavioral outcomes for students in school settings.

APPENDIX A

STAFF DEMOGRAPHIC QUESTIONNAIRE

Staff Demographic Questionnaire

School Staff Participant: _____

1. What is your position in the school?

2. How long have you been a teacher/ working in schools?

3. How would you rate your knowledge of behavioral theory? (Please circle one)

Very Limited	Limited	Fair	Good	Extensive
1	2	3	4	5

4. What type(s) of training have you received related to FBA? (Circle **all** that apply)

   a. University course work

   b. "Practical FBA" with Sheldon Loman

   c. Training(s) by district personnel

   d. Other: _____

5. Has your most recent FBA training occurred within the past 24 months? _____

6. How many functional behavioral assessments have you conducted or helped to conduct in the past 2 years?

0	1-3	4-6	6-10	10+

7. How many behavior support plans have you developed/helped to develop as part of a team in the past 2 years?

0	1-3	4-6	6-10	10+

APPENDIX B

KNOWLEDGE OF BEHAVIORAL THEORY PRETEST

Knowledge of Behavioral Theory Pretest

Name or other identification:_____

1. When completing an FBA, behaviors must be *defined* in such a way that they are:

a.) Discrete and functional.
b.) Observable and measurable.
c.) Contingent and observable.

2. When Hailey hits other children in her Kindergarten class during snack, her teacher, Mrs. Gillespie, explains to Hailey that hitting others is "not nice" and asks Hailey to come sit beside her (where she continues receive teacher attention). Mrs. Gillespie has explained to the behavior specialist that, although she is 'reprimanded' almost daily, Hailey continues to hit other children.

Based on the information provided, 'teacher attention' is most likely functioning as:

a.) A positive reinforcer
b.) A punisher
c.) An antecedent

3. Events that occur immediately before and act as "triggers" for problem behavior are called:

a.) Consequences
b.) Antecedents
c.) Setting events

4. John engages in problem behavior to gain access to peer attention. As recommended in his BSP, John's <u>peers have been taught to ignore John's inappropriate behavior and walk away</u>. This strategy is an example of:

a.) Reinforcement
b.) Positive Punishment
c.) Extinction

5. Read the following scenario and answer the questions regarding Barry.

Barry walks into the room – Joe and Mary begin giggling and pointing at him. Barry shouts "shut up jerks!" Joe and Mary immediately turn around. As Barry approaches his desk, Sarah is sitting in his seat talking to a neighbor. Barry threatens "get out of my seat now or I'll jam this pencil in your ear!" Sarah immediately leaves the seat and moves away. Barry's problem behavior is more likely to occur when Barry has stayed at his grandparent's house for the weekend.

A. Define Barry's problem behavior.

_____

Identify the setting event for Barry's behavior

_____

B. Describe the typical consequence of Barry's behavior

_____

C. Based on the scenario above: What do you "hypothesize" is the function of Barry's behavior?

_____

APPENDIX C

BSP PRE/POST TRAINING ASSESSMENT - VERSION A

BSP Pre/Post Training Assessment - Version A

Name: _____

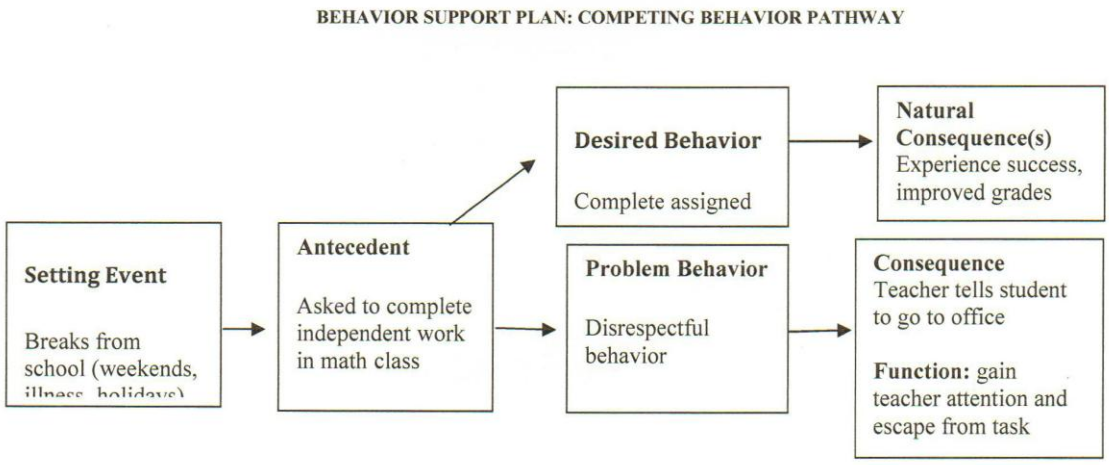
1. What are the four steps in building a Behavior Support Plan?

2. **Please describe three elements that are incorrect or missing from the competing behavior pathway below:**

a) _____

b) _____

c) _____



3. **What are the three types of intervention strategies that should be included as part of any behavior support plan?**

_____

4. Please read the hypothetical vignettes below. Based on the information provided, please indicate if you would rate the proposed interventions as a:

FB- Function-based intervention = an intervention that directly addresses the function of the problem behavior and is expected to improve behavior

N- Neutral intervention = an intervention that might be effective or is a good behavior management practice, but is unrelated to the function of the problem behavior

C- Contraindicated intervention = an intervention that conflicts with the function of the problem behavior (i.e., provides access to maintaining consequence(s) following problem behavior) and may increase problem behavior

Vignette 1

Jacob, a 6th grade student diagnosed with Asperger's Syndrome, was referred to the behavior support team by his science teacher, Mr. Volding, for disruptive and disrespectful behavior. After interviewing Mr. Volding and conducting several observations of Jacob, the team determined that, particularly on days when an altercation with a peer has occurred prior to science class, when asked to do work with a partner or small group, Jacob makes inappropriate comments (e.g., "This is stupid!"), pushes materials off his desk, and refuses to do his work. Based on the data collected, the team agreed that the function of Jacob's behavior is to avoid working with peers.

Based on the information provided in the vignette, the team is considering the following interventions. For each intervention, please indicate if you would rate it as a FB (function-based), N (neutral), or (contraindicated) in the spaces provided.

1. ____ Teach student to appropriately request a break from working with his partner(s).

2. ____ When problem behavior occurs, allow student to work alone.

3. ____ Develop a behavior contract with the student specifying that if he works successfully with peers for a specified part of lab time, he can spend the remainder of class time working independently.

4. ____ Review class rules about respectful interactions with peers at the beginning of class.

5. ____ When problem behavior occurs, send student to resource classroom to the complete activity.

6. ____ When presenting assignments on days when Jacob has had a previous peer altercation, provide a choice of working either individually or with a peer partner.

7. ____ Provide tokens that can be exchanged for items at the school store when student engages in appropriate peer interactions.

8. ____ Provide pull-out social skills training 3 times per week for 20 minutes.

Vignette 2

Jessica, a 9th grade student, was referred to the behavior support team for 'disrespect' by staff that monitors the halls during passing periods. After interviewing the staff and conducting several observations of Jessica's behavior between classes, the team determined that when walking down the hallways between classes, Jessica shouts curse words and intentionally bumps into peers. This behavior is most likely to occur on the days that Jessica arrives late to school. Based on the data collected, the team agreed that the function of Jessica's behavior is to obtain adult attention.

Based on the information provided in the vignette, the team is considering the following interventions. For each intervention, please indicate if you would rate it as a FB (function-based), N (neutral), or C (contraindicated) in the spaces provided.

1. ____ When problem behavior occurs in the hallway, provide a verbal reprimand and have the student go back to her classroom and then walk down the hallway the 'right way'.

2. ____ Appropriate hallway behavior will be added to Jessica's daily point card, and before classes begin she will 'check-in' briefly with each of her teachers regarding her behavior.

3. ____ On days that the student arrives late to school, she will be allowed to spend 5-10 minutes with the school counselor (a preferred adult) prior to going to class.

4.____ When problem behavior occurs, take the student aside to explain why her behavior is inappropriate and how she should behave in the hallway.

5. ____ Teach student appropriate ways to gain attention from adults and peers in the hallway.

6. ____ When problem behavior occurs, student will be immediately sent to the office to discuss the incident with the principle or counselor.

7. ____ An announcement will be made over the PA system each morning reminding all students how to behave in the hallways.

8. ____ Provide frequent descriptive adult praise for appropriate hallway behavior.

Vignette 3

Audrey, a 3rd grade student, was referred to the behavior support team by her teacher, Mrs. Briggs, for disruptive behavior. After interviewing Mrs. Briggs and conducting several observations of Audrey in the classroom, the team determined that when asked to do independent seat work during math instruction, Audrey cries and tears up her papers. Based on the data collected, the team agreed that the function of Audrey's behavior is to escape difficult academic tasks.

Based on the information provided in the vignette, the team is considering the following interventions. For each intervention, please indicate if you would rate it as a FB (function-based), N (neutral), or C (contraindicated) in the spaces provided.

1. ____ The school counselor will provide two 15-minute anger-management sessions per week for the remainder of the term.

2. ____ Review class rules about working respectfully and quietly before independent seat work.

3. ____ When problem behavior occurs, the student will be sent to the counselor's office to practice self-soothing behaviors.

4. ____ Teach student to raise her hand and ask for help from the teacher when she has difficulty with academic tasks.

5. ____ Modify math assignments to more closely match the student's current skill level, and provide additional tutoring during free-study time.

6. ____ When it appears that the student is becoming frustrated, send her to the hall to calm down.

7. ____ When problem behavior occurs, do not allow the student to escape the task. Instead, prompt the student to ask appropriately for help or for a break from the task, and only provide help or a break after she asks appropriately.

8. ____ Provide frequent descriptive praise when the student engages in appropriate seat-work behavior.

Vignette 4

Bobby, a 10th grade student who has been diagnosed with a learning disability, was referred to the behavior support team by his language arts teacher, Mr. Slade, for disruptive behavior. After interviewing Mr. Slade and conducting several observations of Bobby in the classroom, the team determined that during independent seatwork, Bobby often talks out, makes inappropriate noises, and makes faces at peers. Mr. Slade has changed the seating chart several times, but this strategy has not been effective. Based on the data collected, the team agreed that the function of Bobby's behavior is to obtain attention from peers.

Based on the information provided in the vignette, the team is considering the following interventions. For each intervention, please indicate if you would rate it as a FB (function-based), N (neutral), or C (contraindicated) in the spaces provided.

1. ____ Minimize teacher attention for engaging in challenging behavior and redirect the student by asking him a question related to the lesson.

2. ____ Praise the student frequently for "sitting quietly" during independent seatwork.

3. ____ Teach other students to ignore the problem behavior.

4. ____ When problem behavior occurs, ask the student to partner with an appropriate 'peer model' for the activity.

5. ____ Remind the student of classroom expectations at the beginning of independent work times.

6. ____ Explain to the student that if he completes his assignment without engaging in inappropriate behavior, he can sit at the back table with a peer and play a brief game or talk quietly for 10 minutes.

7. ____ Teach other students that when Bobby is disruptive they should remind him of the classroom rules regarding how to behave during independent work times.

8. ____ Give the student the task of passing out the assignment to his peers and picking the papers up at the end of independent work time.

Vignette 5

Billy, a 5rd grade student, was referred to the behavior support team by his teacher, Mrs. Ables, for bullying. After interviewing Mrs. Abels and conducting several observations of Billy, the team determined that on the playground during recess and when waiting in the lunch line in the cafeteria, Billy pushes, steals from, and is verbally aggressive towards his peers. Based on the data collected, the team agreed that the function of Billy's behavior is to gain access to preferred items (i.e., money and snack items) from peers.

Based on the information provided in the vignette, the team is considering the following interventions. For each intervention, please indicate if you would rate it as a FB (function-based), N (neutral), or C (contraindicated) in the spaces provided.

1. ____ Any form of bullying behavior will result in a trip to the principles office and a call home to the student's parents.

2. ____ Teach peers to immediately walk away and tell a trusted adult when the student begins to engage in bullying behavior.

3. ____ Provide pull-out social skills training 3 times per week for 20 minutes.

4. ____ Reward appropriate interactions on the playground and in the cafeteria with tokens that can be traded for preferred food items.

5. ____ When problem behavior occurs, redirect by allowing the student to choose between snack items and praise appropriate choice-making.

6.____ Remind all students of school-wide expectations before recess and lunch.

7. ____ When problem behavior occurs, the student will apologize to his peer(s) and give back any items that he has taken.

8. ____ Additional staff will be assigned to monitor the cafeteria and playground during lunch and recess.

APPENDIX D

BSP CRITICAL FEATURES CHECKLIST

BSP Critical Features Checklist

Critical Elements of the BSP	Y YES =		NO N =			
	BSP #1	BSP #2	BSP #3	BSP #4	BSP #5	BSP #6
1. Operational (i.e., observable, measurable) description of the problem behavior(s) included?	Y N	Y N	Y N	Y N	Y N	Y N
2. Routine(s) in which problem behavior is most likely to occur identified?	Y N	Y N	Y N	Y N	Y N	Y N
2. a) Antecedents (including setting events, if applicable) are identified?	Y N	Y N	Y N	Y N	Y N	Y N
b) Identified antecedents are consistent with the FBA summary statement?	Y N	Y N	Y N	Y N	Y N	Y N
3. a) The function of the problem behavior is identified?	Y N	Y N	Y N	Y N	Y N	Y N
b) The identified function is consistent with the FBA summary statement?	Y N	Y N	Y N	Y N	Y N	Y N
4. a) An alternative behavior is identified?	Y N	Y N	Y N	Y N	Y N	Y N
b) Alternative behavior is consistent with the FBA summary statement?	Y N	Y N	Y N	Y N	Y N	Y N
5. a) The plan contains strategies for preventing problem behavior from occurring?	Y N	Y N	Y N	Y N	Y N	Y N
b) Prevention strategies include interventions consistent with the FBA summary statement?	Y N	Y N	Y N	Y N	Y N	Y N

	BSP #1	BSP #2	BSP #3	BSP #4	BSP #5	BSP #6
6. The plan contains teaching strategies focused on: a) teaching the alternative behavior?	Y N	Y N	Y N	Y N	Y N	Y N
b) teaching desired behavior/skills?	Y N	Y N	Y N	Y N	Y N	Y N
7. a) The plan contains strategies for reinforcing alternative/desired behaviors?	Y N	Y N	Y N	Y N	Y N	Y N
b) Reinforcement strategies include interventions consistent with summary statement, and no contraindicated* interventions?	Y N	Y N	Y N	Y N	Y N	Y N
8. a) The plan contains strategies for minimizing rewards for problem behavior?	Y N	Y N	Y N	Y N	Y N	Y N
b) Strategies for minimizing rewards are consistent with the FBA summary statement?	Y N	Y N	Y N	Y N	Y N	Y N
9. Includes an Implementation Plan that specifies the person(s) responsible for implementing the intervention strategies?	Y N	Y N	Y N	Y N	Y N	Y N
10. Includes an Evaluation Plan that documents: a) a strategy/strategies for assessing the extent to which the plan is being implemented?	Y N	Y N	Y N	Y N	Y N	Y N
b) a strategy/strategies for assessing the impact of the plan on student outcomes?	Y N	Y N	Y N	Y N	Y N	Y N
c) a date for the next meeting to review the plan?	Y N	Y N	Y N	Y N	Y N	Y N

* Contraindicated interventions result in the problem behavior being reinforced, and would be expected to increase the occurrence of the problem behavior.

APPENDIX E

SELF-ASSESSMENT OF CONTEXTUAL FIT IN SCHOOLS

Self-Assessment of Contextual Fit in Schools

Horner, Salentine, & Albin, 2003

The purpose of this interview is to assess the extent to which the elements of a behavior support plan fit the contextual features of your school environment. The interview asks you to rate (a) your knowledge of the elements of the plan, (b) your perception of the extent to which the elements of the behavior support plan are consistent with your personal values, and skills, and (c) the school's ability to support implementation of the plan. This information will be used to design practical procedures that will help school personnel support children with problem behaviors. The information you provide will be maintained and reported in a confidential manner consistent with the standards of the American Psychological Association. You will never be identified.

Please read the attached behavior support plan, and provide your perceptions of the specific elements in this plan. Thank you for your contribution and assistance.

Name of Interviewee: _____ Role : _____
Support plan reviewed: _____

Knowledge of elements in the Behavior Support Plan.

1. I am aware of the elements of this behavior support plan.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

2. I know what I am expected to do to implement this behavior support plan.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Skills needed to implement the Behavior Support Plan

3. I have the skills needed to implement this behavior support plan.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

4. I have received any training that I need to be able to implement this behavior support plan.

   No training needed _____

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Values are consistent with elements of the behavior support plan

5. I am comfortable implementing the elements of this behavior support plan

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

6. The elements of this behavior support plan are consistent with the way I believe students should be treated.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Resources available to implement the plan

7. My school provides the faculty/staff time needed to implement this behavior support plan.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

8. My school provides the funding, materials, and spaced needed to implement this behavior support plan.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Administrative Support

9. My school provides the supervision support needed for effective implementation of this behavior support plan.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

10. My school administration is committed to investing in effective design and implementation of behavior support plans.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Effectiveness of Behavior Support Plan

11. I believe the behavior support plan will be (or is being) effective in achieving targeted outcomes.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

12. I believe the behavior support plan will help prevent future occurrence of problem behaviors for this child.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Behavior Support Plan is in the best interest of the student

13. I believe this behavior support plan is in the best interest of the student.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

14. This behavior support plan is likely to assist the child to be more successful in school.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

The Behavior Support Plan is efficient to implement

15. Implementing this behavior support plan will not be stressful.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

16. The amount of time, money and energy needed to implement this behavior support plan is reasonable.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

APPENDIX F

DIRECT OBSERVATION DATA SHEET

Direct Observation Data Sheet

Student ID: _____ Date: _____

Observer: _____ IOA: _____

KEY	On Task +	TO = Talk Out/Noises	PT = Talks to peer	OS = Out of Seat	M= Inapprop use of Materials

Secs	0-10	11-20	21-30	31-40	41-50	51-60
1	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
2	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
3	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
4	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
5	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
6	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
7	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
8	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
9	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
10	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
11	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
12	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
13	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
14	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -

15	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
16	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
17	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
18	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
19	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -
20	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -	TO PT OS M + / -

APPENDIX G

IMPLEMENTATION CHECKLIST

Implementation Checklist

Date:_____ Observer:_____
Student:_____ IOA:_____

	Yes	**No**
Tape outline marking student's "spot" visible on carpet (in front of teacher)		
Student was given weighted blanket with the first minute of "carpet time" (i.e., large group instruction)		
Student was reminded what appropriate sitting/raising hand looks like within 3 min of the beginning of carpet time		
Student earned color spots for raising hand, having a quiet mouth, and/or sitting appropriately ("body basics")		
Staff provided at least 5 praise statements to student for appropriate or neutral behaviors (e.g., "sitting quietly", "body basics") within the 20 min observation period		
***In response to problem behavior:**		
Staff provided minimal attention to problem behavior		
***If time-out was used:**		
Total "time-out" did not exceed 3 min		
When student was quiet and seated for several seconds (1 min or less) he was allowed to re-join the group		

*If no problem behavior occurred or time out was not used, mark N/A

Observer notes:

_____

_____

***Note** any additional information that might be helpful. For example, if the classroom schedule was different today, or the staff have begun fading use of the stickers and increasing verbal praise.

APPENDIX H

FROM BASIC FBA TO BSP: PARTICIPANT'S GUIDE

From "Basic FBA" to BSP

Developing Function-Based Support for Students with Mild to Moderate Problem Behavior

PARTICIPANT'S GUIDE

Kathleen Strickland-Cohen, University of Oregon

Sheldon Loman & Chris Borgmeier, Portland State University

Purpose of the Participant's Guide

This participant's guide presents specific procedures for utilizing FBA data to develop function-based behavioral interventions and supports for students with mild to moderate problem behavior. The information and activities presented in this guide are designed to be used by school professionals with:

a) An understanding of basic behavioral theory
b) An understanding of and experience conducting FBA, and
c) The responsibility of leading behavior support teams through the BSP process

as they are guided through the 'From Basic FBA to BSP' training series by an individual well-versed in FBA and behavior analytic principles (e.g., behavior specialist, school psychologist).

*This guide **is NOT** intended to be used as a self-instructional handbook.*

The 'From Basic FBA to BSP' training methods are specifically designed to be used with students who exhibit consistent **problem behaviors that are not dangerous , but that have not been adequately addressed through previous assessment and intervention efforts.** For example, the methods presented within this guide would be appropriate for a student who is off task and out of his or her seat on a daily basis during reading instruction. However, these training methods would not be sufficient for use with a student who strikes others or engages in self-injurious behaviors during multiple school routines.

For students that exhibit complex or dangerous problem behaviors, school personnel should contact a behavior support specialist in your school or district who is trained to develop comprehensive behavioral supports for students with complex challenging behaviors.

From Basic FBA to BSP

Basic vs. Complex Behavior Support

	Basic	Complex
For:	Students with **mild to moderate** problem behaviors (behaviors that are **NOT dangerous** or occurring in many settings)	Students with **moderate to severe** behavioral problems; may be **dangerous and/or occurring in 3 or more settings/routines**
What:	Relatively **Simple** and **Efficient** process for behavior support planning	**Time-intensive** process that involves emergency planning, family-centered planning, and collaboration with outside agencies
Developed by whom:	Team of school-based professionals (e.g., PBS team members whose job responsibilities include FBA and behavior support planning)	School-based team including professionals trained to develop and implement intensive interventions for students with severe problem behaviors (e.g., **behavior specialist**)

Format of the Participant's Guide

Each of the 4 training sessions includes the following elements:

Objectives: Content and skills participants will learn during the session.

Review: A review of terms and concepts from previous sessions.

Activities: Practice opportunities to better understand content and develop skills.

Checks for Understanding & Comments/Questions:
After new content has been taught and practice, activities to check for understanding or identify points that need to be discussed or practiced further will be submitted to trainer.

Presentation Slides: Slides presented in each session.

From Basic FBA to BSP Training Sessions

Session #1: Building Competing Behavior Pathways

Session #2: Identifying Function-Based Behavior Support Strategies

Session #3: Implementation and Evaluation Planning

Session #4: Leading a BSP Team

Session #1: Building Competing Behavior Pathways

By the end of this training session you will be able to:

1. Label the essential components of an FBA summary statement
2. Describe the three essential characteristics of alternative behavior
3. Identify examples and non-examples of appropriate alternative behaviors given sample scenarios
4. Construct an example summary statement including antecedents, behavior, consequence, and function, and provide examples of appropriate and inappropriate alternative behaviors.

Review of Terms

Defining observable problem behaviors:

- Definitions of behaviors need to be:
  - Observable: The behavior is an action that can be **seen**.
  - Measurable: The behavior can be **counted** or **timed**.
  - **Defined so clearly that a person unfamiliar with the student could recognize the behavior without any doubts!**

Review #1

Provide an observable & measurable definition for ONE of these behaviors:

1. Jeff is always disruptive in class.

_____

2. Hailey is constantly off-task during math.

_____

3. Brandon is defiant.

_____

4. Alexis uses inappropriate language.

_____

Where and When is the Problem Behavior Occurring?

Antecedents vs. Setting Events

- **Antecedents -** occur immediately before and act as "triggers" for problem behavior

- **Setting Events –** indirectly "set-up" the problem behavior by temporarily altering the value of maintaining consequences.

Review #2

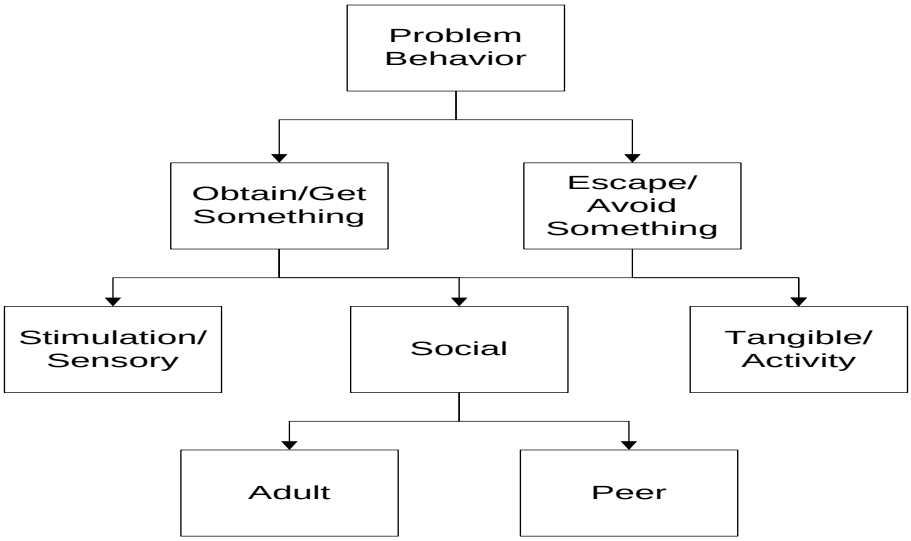
After having an argument with his sibling at home before school, when peers approach Victor in the hallway and say, "Hello", he yells "Leave
me alone!" and "Go away!" Peers call him a weirdo and walk away.

What is the triggering antecedent? _____

What is the setting event? _____

Why is the Problem Behavior Occurring?

Functions that Behaviors Serve



Common Functions of Problem Behavior in School Settings

Obtain/ Access:

- Peer attention
- Adult attention
- Desired activity
- Desired object/ items

Avoid/ Escape:

- Difficult Task
- Boring Task
- Easy Task
- Physical demands
- Non-preferred activity
- Peer
- Staff (reprimands, praise)

From 'Basic FBA' to BSP

The most important purpose of conducting FBA is to inform the development of comprehensive Behavior Support Plans that directly address the <u>FUNCTION</u> of student behavior.

<u>Always Start with the FBA Summary Statement</u>

Essential components of FBA Summary Statements:

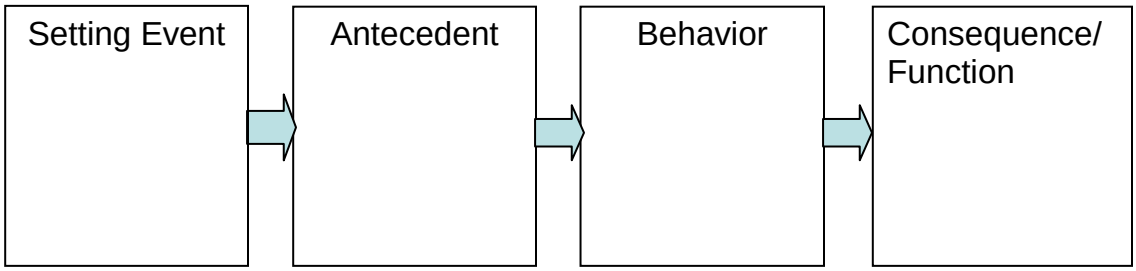
1. The targeted **<u>ROUTINE(S)</u>** in which the problem behavior occurs
2. Any identified **<u>SETTING EVENTS</u>**
3. Triggering **<u>ANTECEDENTS</u>**
4. Operational definition of the **<u>PROBLEM BEHAVIOR</u>**
5. **<u>CONSEQUENCES</u>** that reliably follow the problem behavior
6. Hypothesized **<u>FUNCTION</u>** of the problem behavior

ACTIVITY 1

Create a Summary Statement for Jason's behavior:

When Jason is asked to outline a book chapter in Language Arts, he often argues, refuses to work and uses profanity which results in being sent to the office for 'disrespect'. This behavior is more likely if Jason has an altercation with a peer on the bus on the way to school.

Routine: _____

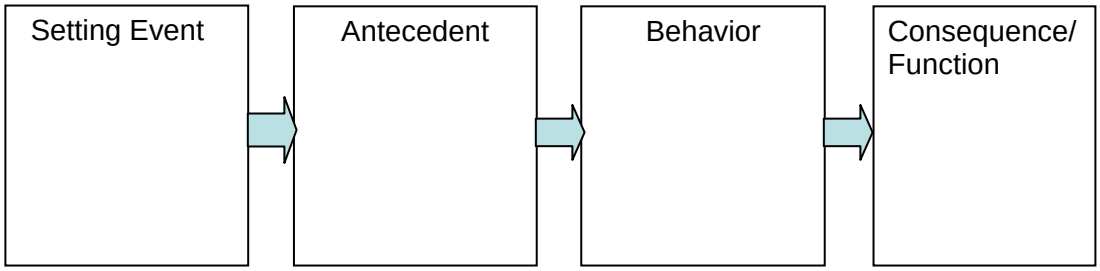


ACTIVITY 2

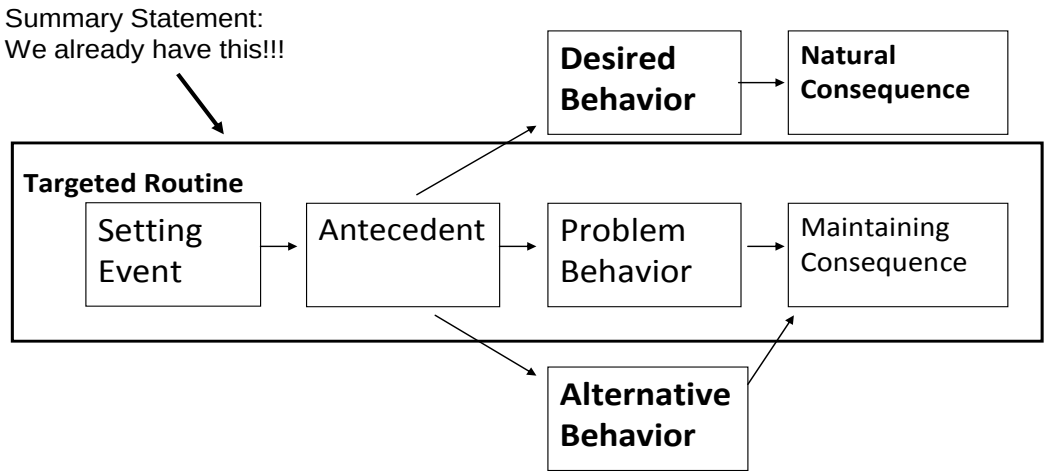
What is wrong with/missing from the following summary statement?

Sarah often leaves her seat without permission, walks around the room and talks with peers. Sarah's peers laugh and talk with her. This behavior is more likely if Sarah has forgotten to take her medication before school. The function of Sarah's behavior is to gain access to teacher attention and to escape tasks.

Routine: _____



Building Competing Behavior Pathways



Alternative vs. Desired Behaviors

- Desired Behavior
  - Long term goal = Follow classroom routines without problem behavior and with minimal supports
    - Often requires teaching complex skills that the student is lacking (e.g., academic skills, social/communication skills, organizational skills)

- Alternative Behavior
  - An immediate attempt to reduce problem behavior
    - Reduces disruption
    - Allows team to implement support plan aimed at teaching new skills and increasing desired behaviors
    - Should be a behavior that the student already engages in or can be quickly learned with **minimal instruction**

Always start with the alternative behavior.

Three Essential Characteristics of Alternative Behavior

1. Serves the same function as the problem behavior (reliably results in the same type of consequences as the problem behavior).

2. Is easier to do than the problem behavior.
   - R*equires less (or at least no more) physical effort* than the problem behavior

3. Is socially acceptable.

ACTIVITY 3

During independent seatwork, Ronnie makes inappropriate noises and makes faces at peers. Based on the data collected, the team agreed that the function of Ronnie's behavior is to obtain peer attention.

Write 'yes' or 'no' for each option AND explain why or why not?

Which is the **BEST** alternative behavior?

- Ask the teacher for help _____
- Finish all work, then ask to talk to a peer _____
- Request help/adult attention _____
- Ask to work with a peer tutor _____
- Request an easier assignment _____

Checks for Understanding: Session #1

Please turn in these pages to the trainer at the end of the session. Please write your name on them (or use some other form of identification) to receive feedback on your responses.

Name or Identification: _____

Check #1

What is the first critical behavior support plan component?

1. _____

Check #2

What are the three essential characteristics of alternative behavior?

1. _____
2. _____
3. _____

Check #3

Write an example summary statement. Include the problem behavior, context/ routine, antecedents, maintaining consequence, and hypothesized function.

Based on your example:

1. Provide an example of an **<u>appropriate</u>** alternative behavior.

2. Provide an example of an **<u>inappropriate</u>** alternative behavior.

Comments/Questions about Session #1: _____

_____

_____

Session #2: Identifying Function-Based Behavior Support Strategies

By the end of this training session you will be able to:

1. Describe the different types of behavior support strategies/interventions that must be included as part of the BSP
2. Discriminate between function-based and non-function-based teaching and antecedent strategies
3. Identify function-based strategies for rewarding alternative/desired behavior AND minimizing the payoff for problem behavior
4. Label missing and incorrect components, when provided with sample behavior support plans

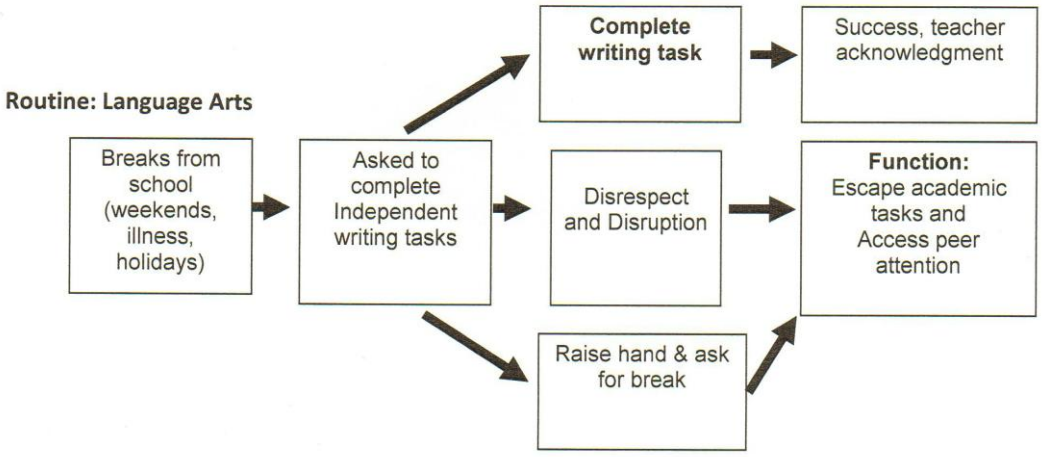
Review #1

What is the first critical behavior support plan component?

1. _____

Review #2

Name two problems with this competing behavior pathway.



1. _____

2. _____

Review #3

What are the three essential characteristics of alternative behavior?

1. _____

2. _____

3. _____

Critical Components of Behavior Support Plans

- #1: Competing Behavior Pathway

- #2: Function-Based **PREVENTION, TEACHING and CONSEQUENCE** Strategies

- #3: Implementation Plan
- #4: Evaluation Plan

The team uses the **FUNCTION** of the problem behavior to identify potential:

Setting Event Strategies	Antecedent Strategies	Teaching Strategies	Consequence Strategies
Neutralize/ eliminate setting events	*Modify or remove triggers to prevent problem behavior* *Prompt alternative and/or desired behavior*	*Teach alternative that is more efficient* *Teach desired skills*	*Add effective reinforcers for alternative and desired behavior* *Minimize reinforcement ("pay-off") for problem behavior*

Setting Event Strategies

These strategies are designed to:

-Eliminate identified setting events

Or

-Build in a *neutralizing routine* to defuse the effects of a setting event

Setting Event Strategies	Manipulate Antecedent	Teach Behavior	Alter Consequences
Eliminate or Neutralize Setting Events	Prevent/Modify "Triggers"	Teach Alternate Behavior	Reinforce Alt/Des Behavior
	Prompt Alt/Des Behavior	Teach Desired Behavior/ Academic/ Social Skills	Response to Problem Behavior/ Corrective Feedback

Neutralizing Routines:

- Diminish the effects of setting events that have already occurred
- Act as "separating events" that occur between the setting event and the triggering antecedent

Antecedent Strategies

These strategies are designed to **prevent** problem behavior by:

1. **Modifying** antecedents that "trigger" the behavior

AND

2. **Prompting** alternative/Desired behavior (pre-correction)

Setting Event Strategies	**Manipulate Antecedent**	**Teach Behavior**	**Alter Consequences**
Eliminate or Neutralize Setting Events	Prevent/Modify "Triggers"	Teach Alternate Behavior	Reinforce Alt/Des Behavior
	Prompts for Alt/Des Behavior	Teach Desired Behavior/ Academic/ Social Skills	Response to Problem Behavior/ Corrective Feedback

The BEST antecedent MODIFICATIONS directly address:

#1. The identified **ANTECEDENT**
#2. The **FUNCTION** of the problem behavior

So… when identifying preventive antecedent strategies:

(A.) Examine the Antecedent & Function of the Problem Behavior

(B.) Change the antecedent so student will no longer need to use problem behavior (make the problem behavior irrelevant)

ACTIVITY 1

When asked to read independently at his seat, Ronnie makes inappropriate noises and makes faces at peers. Based on the data collected, the team agreed that the function of Ronnie's behavior is to obtain peer attention.

Write 'yes' or 'no' for each option AND explain why or why not?

Which is the **BEST** antecedent modifying strategy?

- Provide student with an easier reading assignment
  _____
- Remind student of school rules related to respectful behavior
  _____
- Allow student to wear headphones during independent reading
  _____
- Ask student to work quietly 1:1 with a 'reading buddy'
  _____
- Have student check in with the teacher at the beginning of class
  _____

Teaching Strategies:
Alternative & Desired Behaviors

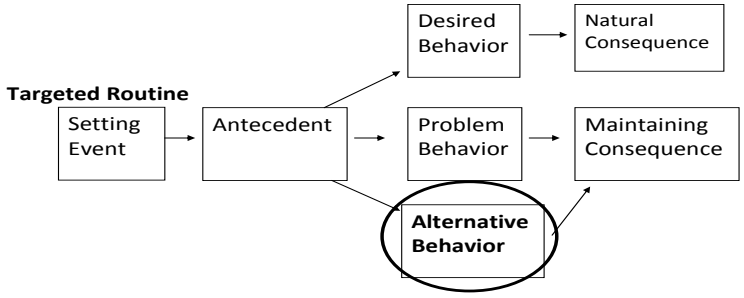
Teaching strategies help make problem behavior inefficient by teaching:

1. Functionally-equivalent alternative behavior

2. New desired skills/behavior

Setting Event Strategies	**Manipulate Antecedents**	**Teach Behavior**	**Alter Consequences**
Eliminate or Neutralize Setting Events	Prevent/Modify "Triggers"	Teach Alternate Behavior	Reinforce Alt/Des Behavior
	Prompt Alternative/ Desired Behavior	Teach Desired Behavior/ Academic/ Social Skills	Response to Problem Behavior/ Corrective Feedback

Always **Start** with the **Alternative** Behavior



Teaching Alternative Behavior

Never assume that the student already "knows" how and when to use the alternative behavior.

1. Develop an observable definition of the behavior
   - Identify and teach examples & non-examples of **HOW** and **WHEN** to use the alternative behavior

2. Model/ Lead/ Test

3. Provide **MULTIPLE** opportunities to **Review & Practice** throughout the day

Teaching Desired Behavior

Common skill deficits that can lead to problem behavior:

- Academic deficits (often related to avoiding difficult tasks)
- Social Skills deficits (often related to attention seeking)
- Organizational skills deficits

Consider need for:

- Additional assessment to identify specific skill deficits
- More focused instruction in class
- Appropriate instructional grouping
- Additional support and practice at home
- Special Education support for academic skill deficits

Consequence Strategies

These strategies help make problem behavior ineffective by:

1. Reinforcing appropriate behaviors (Alternative/ Desired)

AND…

2. Minimizing reinforcement for problem behavior (Redirection/ Extinction)

Setting Event Strategies	Manipulate Antecedent Prevent problem & prompt alternate/desired behavior	Teach Behavior Explicitly Teach Alternative & Desired Behaviors	Alter Consequences Reinforce alternate & desired behavior & extinguish negative behavior
Eliminate or Neutralize Setting Events	Modify/Prevent "Triggers"	Teach Alternate Behavior	Reinforce Alt/Des Behavior
	Prompt Alt/Desired Behavior	Teach Desired Behavior/ Academic/ Social Skills	Response to Problem Behavior - Redirection -Extinction

Reinforcing Alternative Behavior

It is extremely important that the alternative behavior is reinforced:

- Immediately
- Consistently

and…

- Results in the SAME type of reinforcement as the problem behavior

Reinforcing Desired Behavior

Start Small and Build on Success

- The goal is to ultimately have the student **move from** the **alternative** behavior to the **desired** behavior.

- Start with reinforcing **"reasonable" approximations** of the desired behavior
  - Reasonable expectations
    - » What is the student currently doing?
    - » How does this compare to what we want?
  - Timeframe for delivering reinforcer
    - » Rewards have to be delivered often enough to strengthen and maintain behavior

---

Activity 2

During independent reading time in language arts, Audrey **makes noises, talks out, and walks around the room**. The FBA has shown that this behavior is **maintained by adult attention**.

Write 'yes' or 'no' for each option AND explain why or why not?

Which are the **best** reinforcement strategies?

- Student can play a game with the teacher if she works quietly (no more than 2 talk-outs) during independent reading
  _____

- Student is allowed to work with a peer when she has been quiet for 15 minutes _____

- Student allowed to work with teacher if asks appropriately
  _____

- Student can eat lunch with the teacher if no talk-outs for one month
  _____

- Student earns a homework pass for on-task behavior

Responding to Problem Behavior

Responses to Problem Behavior should focus on two things:

#1. Redirecting to the Alternative Behavior
#2. Extinction of the Problem Behavior

Redirection:

- At the earliest signs of problem behavior, quickly redirect to the alternative behavior

Extinction:

- Do **NOT** allow the problem behavior to "work" or "pay off" for the student.

Activity 3

During independent seatwork, Ronnie makes **inappropriate noises and makes faces at peers**. The function of Ronnie's behavior is to **obtain peer attention**.

Write 'yes' or 'no' for each option AND explain why or why not?

Which are the **best** strategies for responding to problem behavior?

- The teacher speaks to the student in the hall and reminds him of the classroom rules _____
- Peers explain to the student that he is being disrespectful _____
- The student is reminded that his parents will be called if he continues to behave inappropriately _____
- Peers are taught to ignore the inappropriate behavior _____
- When the student begins to engage in the problem behavior, he is immediately prompted to appropriately ask to work with a peer _____

Checks for Understanding: Session #2

Please turn in these pages to the trainer at the end of the session. Please write your name on them (or use some other form of identification) to receive feedback on your responses.

Name or Identification: _____

Check #1

What are the first two critical components of Behavior Support Plans?

1. _____

2. _____

Check #2

What are the three types of intervention strategies that should be included as part of any behavior support plan?

1. _____

2. _____

3. _____

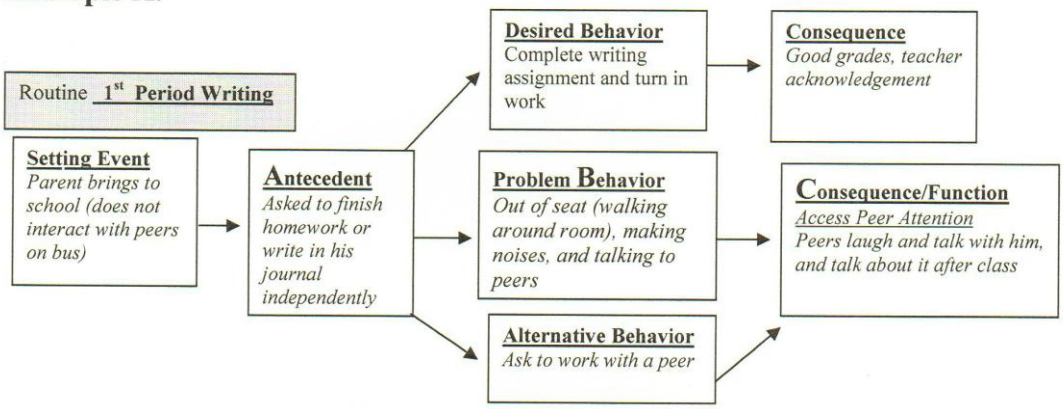
Check #3

Use the information shown in the Competing Behavior Pathways below to determine if the teams have identified appropriate function-based strategies for:

a) Preventing problem behavior
b) Teaching alternative and desired behavior
c) Rewarding appropriate behavior
d) Responding to inappropriate behavior

If not, please circle/explain what is missing/wrong, and propose an appropriate strategy.

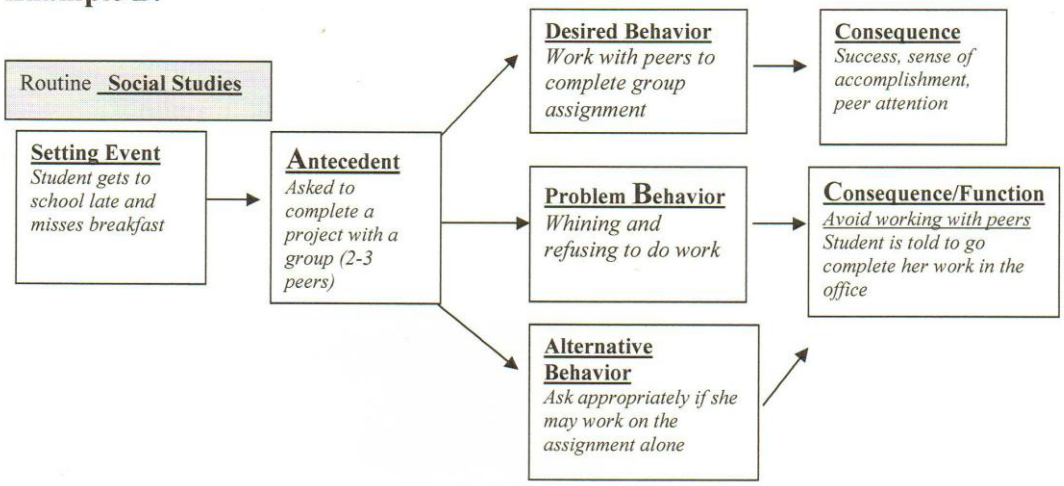
Example A.



Setting Events	**Manipulate Antecedent**	**Teach Behavior**	**Alter Consequences**
Arrange time for positive adult attention before writing on days when student is brought by parent	*Remind student before independent-work time that he may choose to work quietly with a peer* *Allow student to sit with preferred peer in 1st period writing*	*Teach student to appropriately ask to work with a peer* *Explicitly teach what "on-task" behavior looks like (and does not look like) in writing class*	**Rewards** *Student can work with peer when asks appropriately* *Student can earn 5 minutes of free time with a peer, if stays on task for 90% of period for 5 consecutive days* **Response to Problem** *When student starts to get out of seat/engage in problem behavior, remind him to ask appropriately to work with a peer*

Is there anything incorrect or missing? _____
_____
_____
_____
_____

Example B.



Setting Events	Manipulate Antecedent	Teach Behavior	Alter Consequences
Arrange for more opportunities to interact with peers on days when student has not had breakfast	*When passing out assignments provide student with a choice of working with a group or completing the assignment alone* *Place a "reminder" card on student's desk stating that she may ask to work alone at any point during the group task*	*Provide social skills training focused on how to work cooperatively with peers 3 x per week*	**Rewards** *Student will be allowed to work alone when asks appropriately* **Response to Problem** *At first sign of problem behavior, student will be told to go to resource room to complete work on her own* *Student is told that she may work alone after she either a) asks appropriately, or b) completes one part of the task with peers*

Is there anything incorrect or missing? _____

_____

_____

_____

_____

_____

Comments/Questions about Session #2: _____

_____

_____

_____

Session #3: Implementation and Evaluation Planning

By the end of this training session you will be able to:

1. Explain the meaning and importance of "contextual fit"

2. Describe the essential components of an evaluation plan

3. Describe the necessary components of an implementation plan and provide examples of appropriate short- and long-term goals and data collection procedures when provided with a sample BSP

4. Explain how data are reviewed and decisions are made based on those data during BSP review meetings

Review #1

What are the first 2 critical components of Behavior Support Plans?

1. _____

2. _____

Review #2

Preventive strategies are designed to make problem behavior irrelevant by:

1. Eliminating or modifying _____ that "trigger" problem behavior

and…

2. Eliminating or neutralizing any identified _____ _____ that "set up" problem behavior.

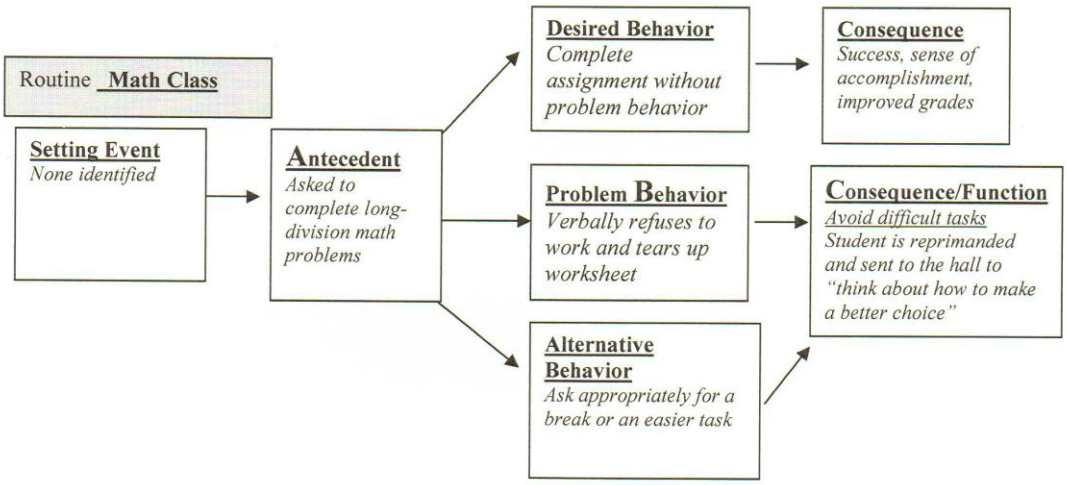
Review #3

Name the two types of CONSEQUENCE strategies that must be included as part of any Behavior Support Plan:

1. _____

2. _____

Review #4



Setting Events	Manipulate Antecedent	Teach Behavior	Alter Consequences
(None identified)	- Provide visual prompts (highlighted text, graphic organizers) for writing assignments - Put visual reminder on desk to prompt Jim to ask for a break or easier task	- Teach Jim **how** to appropriately ask for a 'break' or for an easier task and **when** (appropriate times) to do so - Provide additional small-group instruction multiplication and division	- For every 5 difficult math problems that Jim completes, he will be allowed to skip 5 problems - When Jim first begins to get upset, ask him to go to the hall - If Jim continues to engage in problem behavior, he will complete his assignment with teacher during "free choice time"

Is there anything incorrect or missing? _____

_____

_____

_____

_____

Contextual Fit

Contextual fit refers to the extent to which support strategies "fit" with:

- The skills and values of the implementers
- The available resources
- Administrative structure/support

****Strategies with good "fit" are more likely to be implemented accurately and consistently**

Considerations to Help Ensure Contextual Fit:

- Are plan implementers involved in the design/selection?
- Are strategies consistent with the skills of the implementers?
  - How much additional training would be needed? Who would provide training?
- Are necessary resources available (staff, time, space)?
  - Are there other interventions already being implemented in our school that would fit this student's particular needs?
- Do the selected strategies fit with the values of team members and those who will be implementing the plan?
  - Are they perceived as (a) likely to be effective, and (b) in the best interest of the student?
- Will there be administrative support for the selected interventions/strategies? Is the plan consistent with current school-wide discipline procedures?

Implementation and Evaluation Planning

Critical Components of Behavior Support Plans

- #1: Competing Behavior Pathway
- #2: Function-Based Prevention, Teaching, and Consequence Strategies
- #3: **Implementation Plan**
- #4: **Develop Evaluation Plan**

Implementation Planning: **WHO** will do **WHAT**, by **WHEN**?

Consider:

- What specific activities will be involved?
    - Developing materials (ex. reinforcement system)
    - Designing and teaching curriculum
    - Data collection design
- Who is responsible for implementing each part of the intervention?
- When will each part of the plan be implemented?

Training Staff How to Implement the BSP

- The plan will not be implemented if:
  - Staff don't understand how to do it
    or…
  - If the plan is not working because the intervention is being used incorrectly

- Plan times for Modeling/Roleplay and Feedback to ensure that staff understand how to implement BSP strategies

- Plan for frequent Follow-ups to provide feedback, help problem solve, and ensure that intervention is being used as designed
  - Ex. E-mail "check-in", along with periodic visits/observations

---

Activity 1

Using the Implementation Plan template below, make a list of the specific activities that might be involved in implementing the following strategies:

Setting Event Strategies	Antecedent Strategies	Teaching Strategies	Consequences Strategies
(No setting event identified)	- Provide math and writing assignments that more closely match instructional level - Provide visual prompts (highlighted text, graphic organizers) for writing assignments - Put visual reminder on desk to prompt Jim to ask for a break or easier task	- Teach Jim **how** to appropriately ask for a 'break' or for an easier task and **when** (appropriate times) to do so - Provide additional small-group instruction in multi-digit multiplication and division	- Quickly and consistently provide a break or an easier task when he requests appropriately - For every 5 difficult math problems that Jim completes, he will be allowed to skip 5 problems - When Jim begins to get upset, remind him to ask for a break - If Jim continues to engage in problem behavior, he will complete his assignment with teacher during "free choice time"

BEHAVIOR SUPPORT IMPLEMENTATION PLAN

Tasks	**Person Responsible**	**By When**	**Review Date** _____	
			Impl. Rating: 2 = Yes - 90% + 1 =Kinda 50-90% 0 = No - <50%	**Evaluation Decision** Monitor, Modify, or Discontinue
Prevention (environmental redesign)			2 1 0	
			2 1 0	
			2 1 0	
Teaching (teach new skills)			2 1 0	
			2 1 0	
Consequences (reward appropriate behavior, minimize pay-off for problem behavior)			2 1 0	
			Impl Score ## / ## Total Possible	

Evaluation Planning: How Will We Measure Progress?

The team identifies:

- **Short-term goal**
- **Long-term goal**
- **Specific evaluation procedures**
- **Date to meet and evaluate the effectiveness of the plan**

EVALUATION PLAN

Behavioral Goal (Use specific, observable, measurable descriptions of goal)

What is the short-term behavioral goal?

_____ **Expected date**

What is the long-term behavioral goal?

_____ **Expected date**

Evaluation Procedures

Data to be Collected	Procedures for Data Collection	Person Responsible	Timeline
Is Plan Being Implemented?			
Is Plan Making a Difference?			

Plan date for review meeting (suggested within 2 weeks) _____

Short-Term & Long-Term Goals

Short-term goal- Focus on increasing student's use of the identified **Alternative** behavior & reductions in problem behavior

- Use baseline data to develop a **REASONABLE** initial goal that student will be able to achieve
- Short term goal will continuously be revised, gradually working toward the long-term goal

Long-term goal- Focus on **Desired** behavior & sustained reductions in problem behavior

- Begin by reinforcing approximations of desired behavior

Measuring Progress

In addition to long- and short-term goals, the evaluation plan includes the specific data that will be collected to assess:

#1. Is the plan being implemented as designed?

#2. Is the plan making an impact on student behavior?

Considerations When Developing Evaluation Measures:

1. Does the measure capture the **specific** tasks/target behaviors of interest?

- Is the plan being implemented?
  - Did I implement the plan? **vs.** Did I check in with student and provide specific praise when she entered class?
- Is the plan making a difference?
  - Was it a "good" or "bad" day? **vs.** How many talk-outs occurred during Spanish class today?

2. What is the best way to measure student behavior (i.e., are measures sensitive to change)?

- Frequency/Rate – How often does the behavior occur?
- Duration – How long does the behavior last?
- Latency – How much time passes between "trigger" and behavior?

Activity 2

List one appropriate and one problem behavior that would be best measured
by (pick one):

- Frequency/Rate _____
- Duration_____
- Latency_____

Considering <u>Contextual Fit</u> When Developing Evaluation Measures: Balancing Accuracy and Feasibility

- Are implementers consulted/included when designing measures?
- How often will data need to be collected?
- How much time, effort will data collection methods require? Does this "fit" the context/setting?
- Are there forms that staff are already using (ex. point cards) that can be modified/used?

Activity 3

Based on the following summary statement and support strategies, use the template below to develop an evaluation plan including:

- A short-term **AND** long-term goal
- Data to be collected
- Procedures for data collection

During low structure activities (playground, centers), when denied access to a preferred activity or object, Stanley screams and spits at adults because this behavior sometimes results in gaining access to the preferred activity/item. This is most likely to happen when Stanley did not take his medication before school.

Setting Event Strategies	Antecedent Strategies	Teaching Strategies	Consequences Strategies
Stanley will take his medication in the nurses office upon arrival to school	Prompt student to use visual schedule and arrange so that highly preferred activities consistently follow less preferred activities	Teach how to use visual schedule and pictures to make choices Teach to engage in appropriate play activities independently, and with peers	When Stanley begins to become upset, prompt him to use his schedule/pictures **Do not** allow access to Preferred activities/items following problem behavior Consistently reward appropriate choice making with access to preferred items/activities If spitting occurs move away and minimize attention; when calm, prompt appropriate Requesting

EVALUATION PLAN

Behavioral Goal (Use specific, observable, measurable descriptions of goal)

What is the short-term behavioral goal?

_____ Expected date

What is the long-term behavioral goal?

_____ Expected date

Evaluation Procedures

Data to be Collected	Procedures for Data Collection	Person Responsible	Timeline
Is Plan Being Implemented?			
Is Plan Making a Difference?			

Team Meeting to Review the BSP

(*Review meeting should be scheduled within 2 weeks of plan development/implementation**)**

Review each component of the plan to determine:

1. The extent to which each strategy is being implemented
2. If the plan is making a difference/if progress is being made
3. If the data indicate that the plan needs to be modified and, if so, how
4. The date of the next review meeting

Review Meeting: Questions for team members

Is the Plan Being Implemented?

• If Yes: Great job!	• If No: – Do implementers understand how and when to use strategies? – Are strategies feasible in the natural setting? – Are there ways that plan can be modified to make implementation more likely?

***Note:** If the plan is not being implemented with fidelity, we can not assess if the plan is working.

Is the Plan Making a Difference?

- If Yes: Great! And…

Have criteria been met?

  - If No:
    - Keep monitoring
  - If Yes:
    - Modify goal?
    - Increase self-monitoring?
    - Begin gradually fading antecedent supports?
    - Begin gradually fading or modifying rewards?

- If No: Then…

Is plan being implemented?

  - If NO:
    - Focus on implementation
  - If Yes:
    - Is student consistently being rewarded for alt/des behavior? How often?
    - Are reinforcers for alt/des behavior "strong" enough?
    - Is problem behavior still being rewarded?

Checks for Understanding: Session #3

Please turn in these pages to the trainer at the end of the session. Please write your name on them (or use some other form of identification) to receive feedback on your responses.

Name or Identification: _____

Check #1

List 3 factors that need to be considered to ensure that behavior support strategies have good "contextual fit".

1. _____

2. _____

3. _____

Briefly explain why contextual fit is important: _____
_____
_____

Check #2

What are the four critical components of Behavior Support Plans?

1. _____

2. _____

3. _____

4. _____

Check #3

BSP Implementation Plans specify _____ will do _____ by _____.

Check #4

When developing a BSP evaluation plan, short-term goals are focused on increasing the student's use of the _____ behavior, while long-term goals focus more on increasing the _____ behavior.

Check #5

When meeting to review the BSP, the first question that behavior support team members should ask is:

_____?

Comments/Questions about Session #3: _____

_____

_____

_____

Session #4: Leading a Team through the Behavior Support Planning Process

By the end of this training session you will be able to:

1. Describe the role of the team leader in guiding the BSP process

2. Identify the specific activities that the team leader will engage in prior to, during, and after the team-based development process

3. Identify specific questions that the team leader will use to guide the BSP development process

4. Lead a "team" of professionals through the process of developing a sample BSP

Review #1

List the four critical components of Behavior Support Plans:

1. _____

2. _____

3. _____

4. _____

Review #2

Name the two types of **CONSEQUENCE** strategies that must be included as part of any Behavior Support Plan:

1. _____

2. _____

Review #3

What are the three essential characteristics of alternative behavior?

1. **_____**
2. _____
3. _____

Review #4

Sarah's team has developed an implementation plan detailing:

- The specific activities/procedures that will be used to implement the plan
- The persons responsible to implementing each component of the plan

What has Sarah's team forgotten to include?

Review #5

- Edgar's team has met to review his progress since implementing the BSP.

The data show that Edgar's problem behavior has not decreased in the past 2 weeks.

What is the first question that Edgar's team should ask?

Leading a BSP Team

Role of the Team Leader

- Display necessary information for team members to see/use throughout the process
- Ensure that preventive, teaching, and consequence strategies are Function-Based
- Ensure that all team members participate in the process and agree with outcomes (assess contextual fit)
- Ensure that the BSP includes all necessary components, including implementation and evaluation plans

Team Leader Responsibilities: PRIOR TO BSP MEETING

- Read FBA results and determine if FBA contains a COMPLETE summary statement, including:
    - Operational definition of problem behavior
    - Routine(s) in which problem behavior occurs
    - Antecedents (setting events & triggers)
    - Primary consequence / Function of the problem behavior

- Ensure that meeting place provides access to white board/markers or a projector/LCD screen (or other means of display).

Team Leader Responsibilities: DURING BSP MEETING

Step #1: Ensure Team Agreement on Summary Statement

- Display (or provide written copies of) the summary statement for each team member to refer to when building the BSP

- Ensure that all team members **agree** on:

1. The **Problem Behavior** and **Context** in which it is most likely to occur
2. The **Function** of the problem behavior

Step #2: Build the Competing Behavior Pathway

- Draw/Display the CBP model template
- Guide the team in incorporating the summary statement information into the template
- Help team members operationally define the alternative and desired behaviors
- Ensure that the team selects an alternative behavior that is:
    - Functionally equivalent to problem behavior
    - Easier to do than problem behavior
    - Socially acceptable

Step #3: Identify Behavior Support Strategies

- Draw or display columns to write suggested preventive, teaching, and consequence strategies

- Ask team members a series of questions to recruit ideas for potential strategies

- Ensure that all team members have an opportunity to participate

Identifying Strategies: Questions for the Team

- How can we arrange the environment to prevent the problem behavior?
- How will we teach and reward the alternative behavior?
- What skills can we teach to move toward the desired behavior?
- How can we exaggerate the pay-off for approximations of the desired behavior?
- How can we minimize the "pay-off" for the problem behavior?

- **IF** team members suggest a strategy that is not function-based or is contraindicated:
  - Direct team members' attention back to the competing behavior pathway
  - Remind team that:

  1. We **DO** want to reward appropriate behavior with the **SAME** or similar consequences as those currently maintaining the problem behavior

2. We **DO NOT** want the student to access reinforcement following problem behavior

Step #4: Develop Implementation Plan

- Once all strategies are selected, the team will develop a plan specifying:
  - **What** activities will need to be undertaken to ensure that EVERY plan component is implemented
  - **Who** is responsible for implementing each component of the plan
  - **When** each aspect of the plan will be implemented

Step #5: Develop Evaluation Plan

- The team leader will ensure that the BSP includes an evaluation plan with:
  - A short-term goal that is reasonable based on current performance
    - Focused on increasing alternative behavior and decreasing problem behavior
  - A long-term goal focused on increasing desired behavior
  - Specific activities/procedures that will be used to evaluate progress
  - A **specific date** when the team will next meet to review progress

Checks for Understanding: Session #4

Please turn in these pages to the trainer at the end of the session. Please write your name on them (or use some other form of identification) to receive feedback on your responses.

Name or Identification: _____

Check #1

Prior to the BSP team meeting, the team leader will read over the FBA results and ensure that the FBA includes a complete _____ _____.

Check #2

When developing the competing behavior pathway, the team leader will ensure that team members specify the desired behavior and identify a functionally-equivalent _____ behavior.

Check #3

The BSP team leader ensures that all team members work together to identify function-based and contextually appropriate

_____, _____, and

_____ strategies.

Check #4

In addition to the competing behavior pathway and behavior support strategies, a complete BSP must also include

_____

and _____ plans.

Comments/Questions about Session #4: _____

_____

_____

_____

Group Activity

- As a "team" use the following summary statement to:
  - Build a competing behavior pathway
  - Select function-based preventive, teaching, and consequence strategies
  - Identify the activities that will be included in the Implementation Plan
  - Decide how you might Evaluate the Plan

At the end of "free-choice" time, when asked to transition back to her desk, Charlie verbally refuses, cries, and falls to the floor to avoid transitioning to a less preferred activity. This is most likely to occur on days when Charlie does not take her medicine before school. Charlie's "tantrums" occur 3-4 times per week and can last up to 10 minutes.

*use BSP template

APPENDIX I

BEHAVIOR SUPPORT PLAN

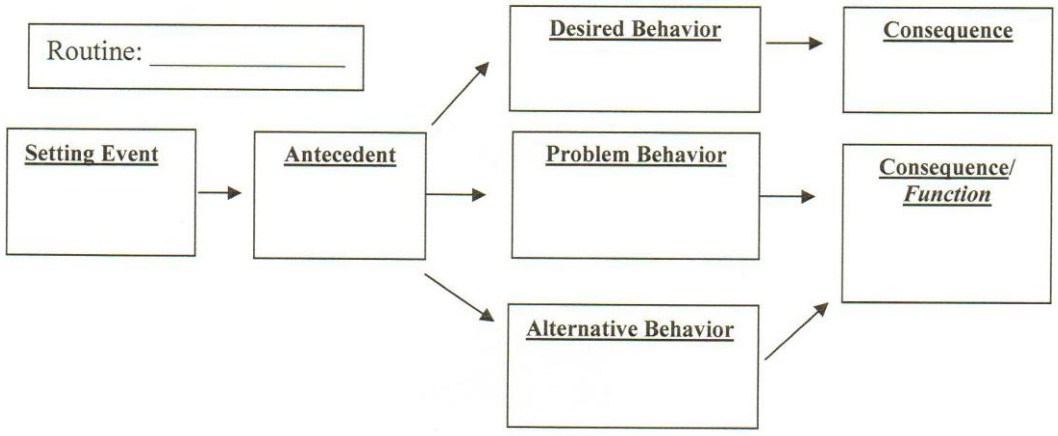
Behavior Support Plan

Developed from a Functional Behavioral Assessment

Student _____ Grade _____ Date

_____

BUILD A COMPETING BEHAVIOR PATHWAY



Setting Event Strategies	**Antecedent Strategies**	**Teaching Strategies**	**Consequence Strategies**
Eliminate/ Neutralize Setting Events	Eliminate/ Modify Antecedents	**Teach Alternate Behavior**	**Reinforce Alt/Des Behavior**
	Prompt Alt/Des Behavior	**Teach Desired Behavior/ Skills**	Respond to Problem Behavior/ Redirect Extinguish

Adapted by C. Borgmeier (2002) from multiple sources: Bergstrom & Crone (2000); March, Horner, Lewis-Palmer, Brown, Crone, & Todd (1999); O'Neill, Horner, Albin, Sprague, Story, & Newton (1997); Palmer & Sugai (2000); Sprick, Sprick, & Garrison (1993); and Martin, Hagan-Burke, & Sugai (2000).

BEHAVIOR SUPPORT IMPLEMENTATION PLAN

Tasks	Person Responsible	By When	Review Date _____ **Impl. Rating:** 2 = Yes - 90%+ 1 =Kinda 50-90% 0 = No - <50%	**Evaluation Decision** Monitor, Modify, or Discontinue
Prevention:				
			2 1 0	
			2 1 0	
Teaching:			2 1 0	
			2 1 0	
			2 1 0	
Consequence:			2 1 0	
			2 1 0	
			Impl Score ## / ## Total Possible	

Adapted by C. Borgm eier (2002) from multiple sources: Bergstrom & Crone (2000); March, Horner, Lewis-Palmer, Brown, Crone, & Todd (1999); O'Neill, Horner, Albin, Sprague, Story, & Newton (1997); Palmer & Sugai (2000); Sprick, Sprick, & Garrison (1993); and Martin, Hagan-Burke, & Sugai (2000).

EVALUATION PLAN

Behavioral Goal (Use specific, observable, measurable descriptions of goal)

What is the short-term behavioral goal?

_____ **Expected date**

What is the long-term behavioral goal?

_____ **Expected date**

Evaluation Procedures

Data to be Collected	Procedures for Data Collection	Person Responsible	Timeline
Is Plan Being Implemented?			
Is Plan Making a Difference?			

Plan date for review meeting (suggested within 2 weeks) _____

Adapted by C. Borgmeier (2002) from multiple sources: Bergstrom & Crone (2000); March, Horner, Lewis-Palmer, Brown, Crone, & Todd (1999); O'Neill, Horner, Albin, Sprague, Story, & Newton (1997); Palmer & Sugai (2000); Sprick, Sprick, & Garrison (1993); and Martin, Hagan-Burke, & Sugai (2000).

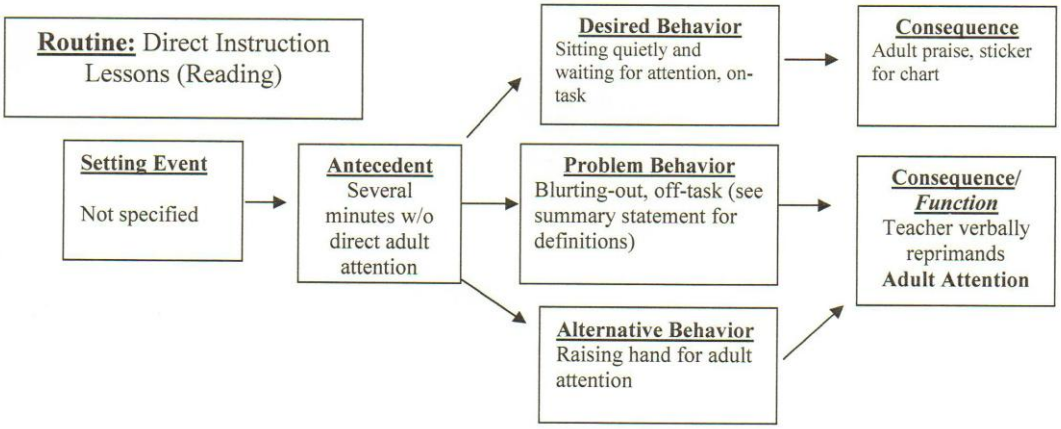
APPENDIX J

SEBASTIAN'S BSP

Behavior Support Plan

Developed from a Functional Behavioral Assessment

Student Sebastian Grade 1st Date _____



Setting Event Strategies	**Antecedent Strategies**	**Teaching Strategies**	**Consequence Strategies**
Eliminate/ Neutralize Setting Events Not specified	Eliminate/ Modify Antecedents - Have teacher in close proximity (large group) - Frequent adult attention for positive or neutral behavior Prompt Alt/Des Behavior - Remind to raise hand for help - Visual reminder to raise hand on desk	**Teach Alternate Behavior** - Directly teach what raising hand looks like, and when to use it **Teach Desired Behavior/ Skills** **- Teach to wait appropriately for teacher attention ("even when we raise our hand teacher may give us a signal to wait")**	**Reinforce Alt/Des Behavior** - Consistent adult praise and sticker for chart for raising hand and on-task behavior Respond to Problem Behavior/ Redirect Extinguish - Giving visual reminder to raise hand (redirect), use a signal - Minimize all adult attention for inappropriate behavior

BEHAVIOR SUPPORT IMPLEMENTATION PLAN

Tasks	Person Responsible	By When	Review Date _____ Impl. Rating: 2 = Yes - 90%+ 1 =Kinda 50-90% 0 = No - <50%	Evaluation Decision Monitor, Modify, or Discontinue
Prevention:				
Make visual reminder card	K.C.	*1/13*	2 1 0	
Model how to use praise frequently for positive/ neutral behavior	K.C.	*1/17*	2 1 0	
Teaching:				
Teach S. what raising hand to get attention does and does not look like	K.C. & Mrs. C	*1/17*	2 1 0 2 1 0	
When plan begins to work, show S. the wait signal that teacher will use when he needs to wait for her attention	K.C.	*?*	2 1 0	
Consequence:	K.C.	*1/17*	2 1 0	
Inform/model for teacher that if problem behavior continues ignore or minimize attention to problem behavior	K.C.	*1/17*	2 1 0	
Model redirection procedure (i.e., visual reminder to raise hand)			Impl Score ## / ## Total Possible	

EVALUATION PLAN

Behavioral Goal (Use specific, observable, measurable descriptions of goal)

What is the short-term behavioral goal?
The student will raise hand for adult attention and will be on task 70% of the time (currently off about 50% of time)

___Feb 1 _____ Expected date

What is the long-term behavioral goal?
S. will wait for adult attention and stay on task at least 80% of time

Evaluation Procedures

Data to be Collected	Procedures for Data Collection	Person Responsible	Timeline
Is Plan Being Implemented?	**Teacher Checklist (KS will help make)**	**Mrs. C**	**2/1/2012**
Is Plan Making a Difference?	**Check in with teacher and observe 2x per week, use Functional Behavior Assessment form**	**K.C.**	**2/1/2012**

Plan date for review meeting (suggested within 2 weeks) ____2/1/2012_____

Adapted by C. Borgmeier (2002) from multiple sources: Bergstrom & Crone (2000); March, Horner, Lewis-Palmer, Brown, Crone, & Todd (1999); O'Neill, Horner, Albin, Sprague, Story, & Newton (1997); Palmer & Sugai (2000); Sprick, Sprick, & Garrison (1993); and Martin, Hagan-Burke, & Sugai (2000)

APPENDIX K

TEAM LEADER ACCEPTABILITY RATING PROFILE

Team Leader Acceptability Rating Profile

Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
9. The "From Basic FBA to BSP" training I received equipped me for developing a BSP with team members in my school.	1	2	3	4	5	6
10. I plan to use these BSP procedures in the future with other students for whom a BSP would be appropriate.	1	2	3	4	5	6
11. I would suggest this training to other school professionals needing to learn to develop BSPs.	1	2	3	4	5	6
12. The tools used within this BSP development process were relatively easy to use.	1	2	3	4	5	6
13. The time spent developing the BSP was reasonable.	1	2	3	4	5	6
14. I feel confident that I can lead behavior support team members in the development of BSPs that address the function of student problem behavior.	1	2	3	4	5	6
15. Overall, the experience in using "From Basic FBA to BSP" methods was beneficial for me.	1	2	3	4	5	6

Since participating in the trainings, I have used the From "Basic FBA" to BSP methods in developing a behavior support plan for one or more students *not* targeted as part of the study. **Yes No (please circle one)**

If Yes: How many students? _____

APPENDIX L

CLASSROOM TEACHER ACCEPTABILITY RATING PROFILE

Classroom Teacher Acceptability Rating Profile

Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
16. The time spent developing the BSP with the behavior support team was reasonable.	1	2	3	4	5	6
17. The intervention strategies are acceptable and appropriate for use in my classroom.	1	2	3	4	5	6
18. Problem behaviors decreased when we began implementing the BSP.	1	2	3	4	5	6
19. Appropriate classroom behaviors increased when we began implementing the BSP.	1	2	3	4	5	6
20. My participation in the implementation of the BSP required a reasonable amount of time and effort.	1	2	3	4	5	6
21. My participation in BSP development and implementation for this student was worth my time and effort.	1	2	3	4	5	6
22. I will continue to use the BSP intervention procedures.	1	2	3	4	5	6

Please list any additional comments or considerations: _____
_____
_____
_____
_____

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