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# The Evolution of Discipline Practices: School-Wide Positive Behavior Supports

George Sugai  
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**SUMMARY.** In response to public requests to improve the purpose and structure of discipline systems, schools have increased their emphases on “school-wide” positive behavior support. The thesis of this paper is that the current problem behavior of students in elementary and middle schools requires a preventive, whole-school approach. The foundation for such an approach lies in the emerging technology of positive behavior support. The features of positive behavior support are defined, and their application to whole-school intervention articulated. Finally, the steps that have been used to implement school-wide positive behavior support in over 500 schools across the nation are described. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website:

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**KEYWORDS.** School-wide positive behavior support, school discipline, prevention

In 1968, the publication of Issue #1, Volume I of the *Journal of Applied Behavior Analysis (JABA)* marked an important point at which the experimental analysis of behavior extended the application of behavioral principles to the study of human behavior. In this seminal issue, Baer, Wolf, and Risley (1968) laid the foundation for the application of applied behavior analysis (ABA) to the study and improvement of human behavior. Subsequent papers in *JABA* and other behavior-related journals demonstrated functional relations between changes in adult and child behaviors, both academic and social.

Now, 33 years after the publication of the first issue of *JABA*, attention on behavioral practices and processes in classrooms and schools has increased. Most significantly, amendments to the Individuals with Disabilities Education Act (IDEA) (1997) codified “positive behavioral interventions and supports,” “functional behavioral assessment” (FBA), and “positive behavior supports” (PBS) into policy and practice and into the business of discipline and classroom and behavior management in every school in America. The purpose of this paper is to describe the status of discipline practices in the context of school-wide PBS and its ABA roots. This discussion is organized into four sections:

- a. need and context for school-wide PBS;
- b. whole-school as the unit of analysis;
- c. defining features of school-wide PBS;
- d. implementation steps for school-wide PBS.

### ***NEED AND CONTEXT FOR SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT***

Although American schools are one of the safest places for children, demands for safer schools have increased because of more attention on acts of school violence, playground “bullies,” and student victimization. In fact, concerns about discipline and problem behavior in schools are not new. Over the past 20 years, fighting, violence, vandalism, tru-

ancy, lack of discipline, and drug use have been among the top concerns of the general public and teachers (1998 Kappan/Gallup Poll). In addition, efforts to improve educational services and opportunities for students with disabilities and problem behavior have increased, especially in general education settings (P.L. 94-142, IDEA 1997, US Department of Education). Thus, management and control of problem behavior regardless of whether the student does or does not have a disability has drawn increased attention from schools, families, and communities.

However, debates continue regarding where, how and whether students with severe antisocial behavior should be educated in general education settings. When teachers experience situations in which students are violent toward their peers or adults, are insubordinate and noncompliant, run away from school, or disrupt the learning of others, their basic reaction is to engage in actions that decrease or avoid such aversive situations (Gunter, Denny, Jack, & Shores, 1993; Gunter, Jack, DePaepe, Reed, & Harrison, 1994; Jack, Shores, Denny, Gunter, DeBriere, & DePaepe, 1996; Shores, Jack, Gunter, Ellis, DeBriere, & Wehby, 1993). Most school conduct codes and discipline handbooks detail consequence sequences designed to “teach” these students that they have violated a school rule, and that their “choice” of behaviors will not be tolerated. When occurrences of rule-violating behavior increase in frequency and intensity,

- a. monitoring and surveillance are increased to “catch” future occurrences of problem behavior,
- b. rules and sanctions for problem behavior are restated and reemphasized,
- c. the continuum of punishment consequences for repeated rule-violations are extended,
- d. efforts are direct toward increasing the consistency with which school staff react to displays of antisocial behavior,
- e. “bottom-line” consequences are accentuated to inhibit future displays of problem behavior.

Ironically, when these types of solutions are used with students with established histories of severe antisocial behavior, increases in the intensity and frequency of antisocial behavior are likely (Mayer, 1995; Mayer & Butterworth, 1979; Mayer, Butterworth, Nafpaktitis, & Sulzer-Azaroff, 1983).

At the school and district levels, reactive responses to occurrences of antisocial behavior also are likely. For example, when significant acts

of school violence are experienced (e.g., shooting, bomb threats, illegal drug activity), schools direct attention toward:

- a. establishing zero tolerance policies;
- b. hiring security personnel;
- c. adding surveillance cameras and metal detectors;
- d. adopting school uniform policies;
- e. using in- and out-of-school detention, suspension, and expulsion;
- f. establishing alternative school placements and programs. (US Department of Health and Human Services, 2001)

Ironically, the effectiveness of these policy and structural responses has not been adequately studied, demonstrated, and validated.

Increases in the uses of these reactive individual teacher and school responses are predictable because they often are associated with relatively immediate (albeit short-term) reductions in serious problem behavior (McCord, 1995; Patterson, Reid, & Dishion, 1992). However, alone they have been ineffective in creating more sustained positive school climates that prevent the development and occurrence of antisocial behavior in schools. In the long term, reactive and punishment-based responses create a false sense of security. Environments of authoritarian control are established. Antisocial behavior events are inadvertently reinforced. Most importantly, the school's primary function to provide opportunities for teaching and academic engagement is decreased.

By themselves, these reactive responses are insufficient to meet the challenge of creating safe schools and positive school climates, and maximizing teaching time and learning opportunities. Numerous sources have advocated for the adoption of more proactive (positive and preventive) approaches to shape individual and school-wide discipline responses (e.g., Center for the Study and Prevention of School Violence, Center for Positive Behavioral Interventions and Supports, Institute on Violence and Destructive Behavior, American Psychological Association, Center on Effective Collaboration and Practice, Office of Safe and Drug Free Schools, Office of Special Education Programs). For example, a recent report on the prevention of school violence published by the Office of the US Surgeon General and prepared by the US Department of Health and Human Services recommends that schools emphasize prevention-based strategies that, for example,

- a. break-up the contingencies that maintain antisocial behavior networks,
- b. increase rates and opportunities for academic success,
- c. establish and sustain positive school and classroom climates,
- d. give priority to an agenda of primary prevention. (US Department of Health and Human Services, 2001)

Similar recommendations for a prevention-based response to school violence have been put forth by leading researchers (Elliott, Hamburg, & Williams, 1998; Gottfredson, 1987; Gottfredson, Gottfredson, & Hybl, 1993; Gottfredson, Gottfredson, & Skroban, 1996; Guerra & Williams, 1996; Mayer, 1995; Skiba & Deno, 1991; Walker, Horner, Sugai, Bullis, Sprague, Bricker, & Kaufman, 1996).

Incongruously, classroom practices and behavior management strategies that support a prevention agenda have been known for over 40 years. For instance, Madsen, Becker, Thomas and colleagues published a series of studies demonstrating the importance of establishing and approving appropriate classroom rules and behavior to achieve positive classroom atmospheres (Becker, Madsen, Arnold, & Thomas, 1967; Madsen, Becker, & Thomas, 1968; Thomas, Becker, & Armstrong, 1968). In addition, in the 1970s educators and psychologists (Berliner, 1985; Brophy, 1979; Brophy & Good, 1986; Emmer, Evertson, & Anderson, 1980; Evertson & Emmer, 1982; Kounin, 1970; Rosenshine, 1985; Rosenshine & Stevens, 1986) highlighted the importance of academic engagement and success in managing and preventing disruptive classrooms.

Although less empirically supported, the importance and features of a prevention agenda at the school-wide level also have solid historical and applied foundations. For example, Mayer, Sulzer-Azaroff, and colleagues (Mayer, 1995; Mayer et al., 1983; Sulzer-Azaroff & Mayer, 1994, 1986) have demonstrated improvements in social behavior and school climate by adopting constructive disciplinary practices (e.g., teaching and encouraging school expectations and behaviors) which led to reductions of vandalism, assaults, and other antisocial behavior (Mayer & Butterworth, 1979; Mayer et al., 1983). Ron Nelson and his colleagues have replicated similar positive outcomes in reducing rates of disruptive behavior and office discipline referrals (Nelson, 1996; Nelson, Johnson, & Marshand-Martella, 1996; Nelson, Martella, & Galand, 1998; Nelson, Martella, & Marchand-Martella, in press). Finally, recent efforts have demonstrated improvements in school discipline patterns when a positive and preventive approach is emphasized (Colvin, Kame'enui, & Sugai, 1993; Taylor-Greene, Brown, Nelson, Longton, Gassman, Cohen, Swartz, Horner, Sugai, & Hall, 1997).

In sum, research support for responding to concerns about school violence, problem behavior, and lack of discipline has a long history. As schools have moved beyond simply excluding children with problem behavior to a policy of active development of social behaviors, expectations for discipline systems have changed. Research indicates that

- a. punishment and exclusion are ineffective when used without a proactive support system (Gottfredson, Karweit, & Gottfredson, 1989; Mayer, 1995; Tolan & Guerra, 1994),
- b. behavioral principles exist for organizing successful support for individual students with problem behavior (Alberto & Troutman, 1999; Kazdin, 1982; Kerr & Nelson, 1983; Vargas, 1977; Wolery, Bailey, & Sugai, 1988),
- c. effective instruction is linked to reduced behavior problems (Becker, 1971; Heward, Heron, Hill, & Trap-Porter, 1984; Jenson, Sloane, & Young, 1988; Lee, Sugai, & Horner, 1999; Sulzer-Azaroff & Mayer, 1986), and
- d. school-wide systems of behavior support can be an efficient system for reducing the incidence of disruptive and antisocial behavior in schools (Chapman & Hofweber, 2000; Colvin & Fernandez, 2000; Horner & Sugai, 2000; Lohrman-O'Rourke et al., 2000; Nakasato, 2000; Nelson, in press; Nersesian et al., 2000; Sadler, 2000; Taylor-Greene et al., 1997; Taylor-Greene & Kartub, 2000; Walker et al., 1996)

#### **WHOLE-SCHOOL AS THE UNIT OF ANALYSIS FOR POSITIVE BEHAVIOR SUPPORT**

From these behavioral foundations and research validations, systemic efforts to implement and sustain effective behavioral interventions have evolved. These efforts focus on taking specific behavioral strategies, practices, and processes beyond the behavior of the individual. The effect has been an increased emphasis on the collective behaviors, working structures, and routines of educators and focusing on the whole school as the unit of analysis (Colvin, Kame'enui, & Sugai, 1993; Colvin, Sugai, & Kame'enui, 1994; Lewis & Sugai, 1999; Sugai & Horner, 1999; Sugai, Horner, Dunlap, Hieneman, Lewis, Nelson, Scott, Liaupsin, Sailor, Turnbull, Wickham, Reuf, & Wilcox, 2000). By focusing on the whole school as the unit of analysis, efforts to arrange learning and social environments for the adoption and sustained use of research-validated practices have become increasingly important in addressing the social behavioral needs of all students in schools. Thus, schools are being asked to organize their resources, activities, and initiatives in ways that efficiently occasion high quality and sustained improvements and positive change in teacher and student behavior.

With the focus on schools to improve school cultures, research-validated strategies and practices remain an important part of the school-wide discipline and behavior management picture. However, systemic factors, like administrative support, team-based problem solving, and data-based decision making, assume even greater importance. This expanded view of school-wide discipline has caused behavior analysts to expand their unit of study to include systems or organized collections of adult behavior. The result has been the evolution of school-wide “positive behavior support” (PBS). Positive behavior support is the combination of four key elements:

- a. outcomes (e.g., academic achievement, social competence, employment options) that are uniquely defined and “valued” by stakeholders (e.g., students, families, teachers, employers),
- b. a behavioral and biomedical science of human behavior that provides fundamental principles for the design of support,
- c. empirically validated practices for achieving identified outcomes in applied contexts,
- d. the implementation of validated practices in the context of the systems change needed for durable and generalized effects. (Sugai et al., 2000)

Thus, PBS has been described as the broad range of systemic and individualized strategies for achieving important social and learning outcomes while preventing problem behavior (OSEP Center on Positive Behavioral Interventions and Supports, 2001).

### ***DEFINING FEATURES OF SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT***

Given this definition and characterization, whole-school PBS can be operationalized by its

- a. integration of four critical elements,
- b. multi-systems perspective,
- c. continuum of behavior support.

#### ***Integration of Four Critical Elements***

Schools are learning that the “tricks” (i.e., strategies, practices, interventions) of behavior and classroom management are insufficient to achieve meaningful and sustained improvements in student behavior, especially when the problem behaviors are chronic and intense. More

importantly, the behavior management capacity of the school is not enhanced when the focus is on reacting to one situation at a time. Thus, schools are integrating effective practices with four critical elements (see Figure 1).

First, school-wide PBS is guided by a careful acknowledgement and consideration of outcomes (e.g., academic achievement, social competence, career/work opportunities) that are valued by significant stakeholders (e.g., students, family members, teachers, employers). Schools must be able to articulate measurable student and staff outcomes if they are to be successful and efficient in

- a. selecting and presenting relevant curriculum,
- b. conducting meaningful educational assessments and evaluations,
- c. utilizing dwindling resources,
- d. creating positive school climates.

Second, school-wide PBS is based on the adoption and sustained use of research-validated practices and curricula that maximize achievement of student and teacher outcomes. Schools must resist the “impulsive” and reactive temptation to discard proven practices whenever a

FIGURE 1. Four Elements of School-Wide Positive Behavior Support



new initiative, curriculum, or strategy is presented. Consideration of new or different practices should be guided by questions of trustworthiness, effectiveness, efficiency, and relevance (Carnine, 1997, 1995, 1992; Peters & Heron, 1992; Sugai & Horner, 1999), for example:

- a. Are educationally and/or socially relevant outcomes specified?
- b. Will the efficiency of outcome achievement be improved (e.g., time, effort)?
- c. Is research accessible and supportive?
- d. Are adoption costs (e.g., training, purchase) justifiable?
- e. Are sound conceptual and theoretical foundations indicated?
- f. Are successful local applications available?
- g. Does evidence exist to support a change in current practice?
- h. Have previous practices been implemented with high fidelity?
- i. Are supports in place to occasion and sustain implementation?

Third, school-wide PBS relies on data to guide decision making (Lewis-Palmer, Sugai, & Larson, 1999; Sugai, Sprague, Horner, & Walker, 2000). Data-based decision making is applied at many levels (i.e., individual, classroom, school), with multiple individuals (i.e., student, teacher, administrator, support staff), across contexts (e.g., general vs. special education, school vs. home), and with multiple outcomes (e.g., reading, grades, attendance, discipline referrals). As indicated above, data should be used to guide the selection of new practices. In addition, data must be collected to evaluate the effectiveness and quality of implementation of current practices (individual or system), characterize and understand a situation (e.g., student's performance, school setting, teacher instruction), guide the development of new or modification of current practices, and monitor student or program progress.

Finally, school-wide PBS considers the systems (e.g., processes, routines, working structures, administrative supports) that are needed to ensure consideration of valued outcomes, research validated practices, and data-based decision making. Systems refer to the effectiveness, efficiency, and relevance, for example, of:

- a. organizational working structures (e.g., committees),
- b. policies and guiding principles (e.g., mission statement, school purpose),
- c. operating routines (e.g., faculty meetings, communications, problem solving, action planning),
- d. resource supports (e.g., families, special education, counseling),
- e. staff/professional development structures and opportunities,
- f. administrative leadership (e.g., participation, visibility, decision making).

### *Multi-Systems Perspective*

Together the four above elements of school-wide PBS emphasize the need for schools to improve the effectiveness, efficiency, and relevance with which they do the business of supporting student behavior. However, this task can be daunting unless schools organize their work around a four systems perspective:

- a. school-wide,
- b. classroom,
- c. non-classroom,
- d. individual student. (Lewis & Sugai, 1999; Sugai & Horner, 1999; Sugai et al., 2000) (See Figure 2.)

*School-Wide Discipline Systems.* A review of the published research and demonstrations of school-wide discipline implementations (Comer, 1985; Gottfredson, 1987; Gottfredson, Gottfredson, & Skroban, 1996; Knoff, 1995; Mayer, Butterworth, Nafpaktitis, & Sulzer-Azaroff, 1983; Sprick & Nolet, 1991; Sulzer-Azaroff & Mayer, 1994; Weissberg, Caplan, & Sivo, 1989) indicates six common features:

1. *Statement of Purpose* that expresses the explicit objective of and rationale for a school-wide discipline structure. This statement should
  - a. be positively phrased;
  - b. focus on all staff, all students, and all school settings;
  - c. link academic and behavioral outcomes.

For example, *George Ikuma School is a community of learners. We are here to learn, grow, and become good citizens.*

2. *Clearly Defined Expectations and Behavioral Examples* that permit consistent communications and establish an effective verbal community for all staff and students and across all settings. Five or fewer positively stated expectations are expressed in a few common words, for example, Respect Ourselves, Respect Others, Respect Environment, Respect Learning.
3. *Procedures for Teaching Expectations and Expected Behaviors* that staff can use to ensure students know and understand school-wide rules, expectations, routines, and positive and negative consequences. Basically, the same procedures that are used to teach academic skills and concepts are applied:
  - a. teach directly (tell/show, practice, test),
  - b. supervise use,
  - c. provide positive and/or corrective feedback.

4. *Procedures for Encouraging Expected Behaviors* that are organized and provided along a continuum of:
  - a. tangible to social forms of feedback,
  - b. staff to student administered,
  - c. high to low frequency,
  - d. predictable to unpredictable presentations.
5. *Procedures for Preventing Problem Behavior* that are organized and provided along a continuum of:
  - a. minor to major rule violations
  - b. increasing intensity and aversiveness of responses.

These procedures should provide clear definitions and examples of rule-violating behaviors, focus on preventing future occurrences of problem behavior by teaching and strengthening prosocial replacement behaviors, consider the contextual function (purpose) of rule-violating behavior, and delineate between teacher versus administrator managed problem behaviors.

6. *Procedures for Record Keeping and Decision Making* that allow for regular (weekly and monthly) feedback to staff about the status of school-wide discipline implementation efforts. Teams should be able to examine patterns at least across students, time, locations, behavior types (appropriate and inappropriate), consequences, and staff members to improve the effectiveness, efficiency, and relevance of their efforts.

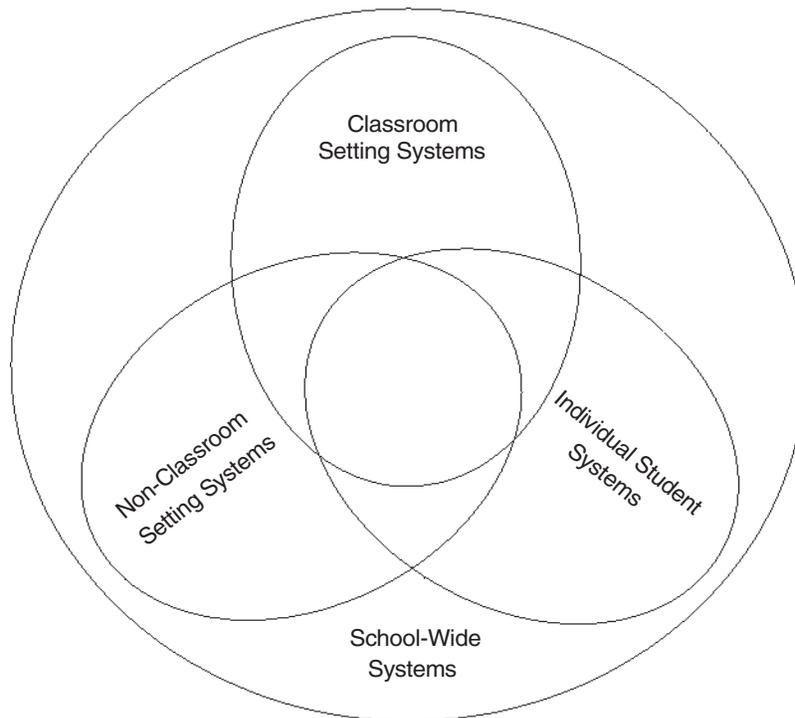
*Classroom Setting Systems.* Behavior management practices and routines in classrooms have many parallels to the six features of school-wide discipline systems. However, teachers also must organize their classrooms in ways that support the presentation and use of academic instruction and curriculum (Colvin & Lazar, 1997; Gettinger, 1988; Kame'enui & Darch, 1995; Martens & Kelly, 1993; Northwest Regional Education Laboratory, 1984; Smith & Misra, 1992). For example, teachers must directly teach students expectations and routines for typical classroom activities (e.g., large vs. small group instruction, whole vs. independent activities, making transitions between activities) such as:

- a. being prepared (e.g., materials, taught the features and expectations of typical routines),
- b. asking for assistance,
- c. getting teacher attention,
- d. solving problems.

Direct instruction on these expectations and routines should occur at critical times of the year (e.g., first day and first week, just prior to and following grading periods or vacation breaks) and practiced and reviewed regularly (e.g., daily/weekly) (Paine et al., 1983; Sprick, Sprick, & Garrison, 1992; Wong & Wong, 1991).

Teachers also must maximize their use of fundamental behavior management practices. For example, teachers must engage in active supervision (e.g., move, scan, interact) so that students learn that teachers are monitoring and evaluating their social behaviors. Teachers must have frequent positive contacts with students individually and as groups. Latham (1992) recommends that teachers maintain a ratio of six to eight positive social engagements for every negative interaction to promote a positive social classroom climate and to support instructional success. Teachers must organize their classroom environments in ways

FIGURE 2. Multiple Systems of School-Wide Positive Behavior Support



that communicate the importance of teaching and learning (e.g., student work, current events), prompt socially desirable behaviors (e.g., posted rules, positive reinforcers), and maximize the delivery of instruction (e.g., curriculum, seating arrangements, supplies).

Teachers must adopt and sustain their use of curriculum that is empirically supported, culturally and developmentally appropriate, modifiable to accommodate individual differences, and outcome-oriented. Finally, teachers must have opportunities to develop and maintain fluency with the delivery of the above practices through, for example, regular staff development experiences, formative collection and review of student progress, and constructive supervisory feedback.

*Non-Classroom Setting Systems.* School settings, like hallways, restrooms, parking lots, and cafeterias present a different set of behavior management challenges. Typically, these settings are characterized by large numbers of students, strong social or student-to-student interaction emphasis, relatively minimum adult presence in number and influence, and limited interpersonal relationships between adults and students. Behavior management in these non-instructional contexts must emphasize supervision that is overt, active and efficient (Colvin & Lazar, 1997; Colvin, Sugai, Good, & Lee, 1997; Kame'enui & Darch, 1995; Lewis, Colvin, & Sugai, in press; Sprick, Sprick, & Garrison, 1992). First, students must be taught directly how school-wide expectations relate to the specific expected behaviors and routines for specific non-classroom settings, and they must have regular opportunities to practice these expected behaviors and routines.

Second, all staff members must engage in active supervision when assigned to a non-classroom setting or when moving through these environments. Active supervision can be operationalized as:

- a. scanning—keeping head up and looking for rule following and violating behaviors,
- b. moving—routinely move through locations where expected behaviors are more difficult for students to demonstrate or where large numbers of students congregate or transition,
- c. interact—make prosocial (positive and preventive) contacts with as many different students as possible (Latham's 6-8 to 1 rule).

Third, all staff members must provide "precorrections" (Colvin, Sugai, & Patching, 1991) in situations where rule-violating behaviors are likely or with individual students in situations where problem behaviors are probable. Precorrections are structured reminders or practice that are presented *before* a student or group of students enter into a

situation in which problem behaviors have been displayed in the past. For example, teachers precorrect students about appropriate ways to use playground equipment as they move from their classrooms to recess. Bus drivers remind students about acceptable hallway behaviors as they exit the bus and enter the school. Supervisors give students verbal reminders about keeping their hands and feet to themselves as they move from the playground into the hallways and into their classrooms.

Finally, if all staff members do not provide positive reinforcement for student displays of rule- and expectation-following behaviors, they cannot expect displays of these behaviors in the future, especially when competing problem behaviors receive reinforcement from peers and when adult presence is insufficient to inhibit problem behaviors. Colvin, Sugai, Good, and Lee (1997) demonstrated that student behavior is functionally related to supervisor behavior. In settings where active supervision was absent, problem behaviors were more likely to be observed regardless of the number of staff members who were present. Given the competing factors that occasion and maintain unacceptable behaviors, staff must provide overt and high rates of specific and general positive reinforcement for rule-following behaviors. Students must learn that expectation-following behaviors are important and valued by adults.

*Individual Student Support Systems.* Systems of PBS for students whose behaviors have proven to be unresponsive to general school- and classroom-wide systems must be more specialized, comprehensive, and individualized, and of higher intensity (Sugai et al., 2000). Individual student systems of PBS have been characterized as having, for example:

- a. a team-based approach to problem solving,
- b. a “function-based” approach to behavioral assessment and behavior intervention planning,
- c. a person-centered approach to comprehensive intervention and service planning,
- d. an emphasis on individualized and targeted social skills and self-management instruction,
- e. an overt link with school-wide academic and behavioral expectations,
- f. an early identification and intervention philosophy. (Horner, 1994; O’Neill et al., 1997; Sugai, Lewis-Palmer, & Hagan-Burke, 1999-2000)

To ensure that these characteristics are implemented with high fidelity, behavioral competence must be available daily and within the schools in which behavioral programming is required. A sample of ar-

eas of behavioral competencies related to individual student support is listed below:

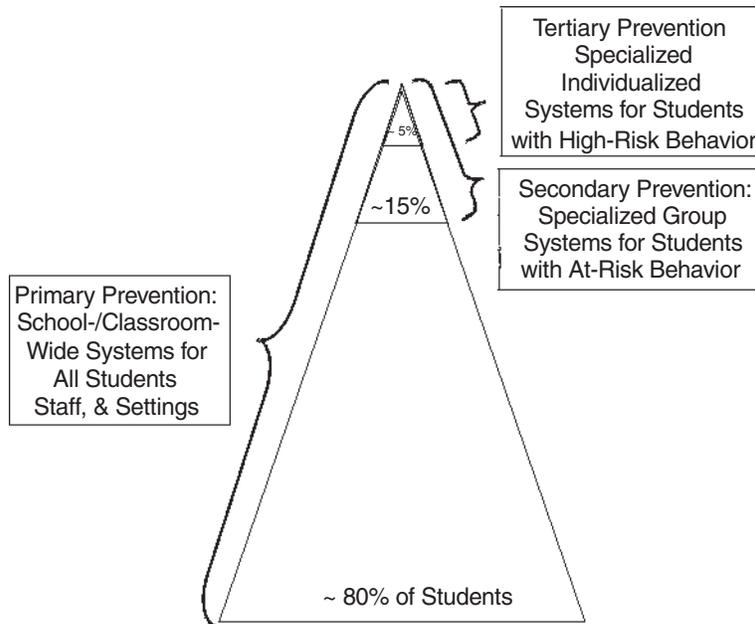
1. School-wide PBS systems, practices, outcomes, and data-based decision making.
2. Functional behavioral assessment-based behavior intervention planning.
3. Multi-disciplinary team-based problem solving and facilitation.
4. Case management facilitation and evaluation.
5. Coordination of cross-disciplinary planning and intervention implementation.
6. Staff training and implementation support.
7. Specialized design of instruction, curriculum accommodations, and instructional delivery strategies.
8. Family support and communication.

### ***Continuum of Behavior Support***

Finally, PBS relies on a continuum of behavior support in which the intensity of behavior support necessarily increases relative to increases in the behavioral needs and challenges of the student (Walker et al., 1996) across the above four systems (see Figure 3). This continuum also iterates how a prevention based perspective is applied across all students within a school. The goal of primary prevention is to inhibit the development of problem behavior by emphasizing the teaching and encouraging desired social behaviors, maximizing academic success, and removing the factors that promote and sustain problem behavior. Secondary prevention strategies focus on removing or reducing the impact of risk factors (e.g., poverty, unsafe neighborhoods, lack of supervision) that students bring to school by bolstering the availability of protective factors (e.g., specialized community and/or school supports, remedial programming, family assistance). Tertiary prevention is focused on reducing the complexity, intensity, severity of problem behaviors that become well-established in the behavioral repertoire of individual students.

When the interplay among outcomes, practices, systems, and data; multiple systems; and continua of behavior supports are considered collectively, the importance of the “school-as-the-unit of analysis” becomes more apparent and important. Educators will need to look beyond basic behavior and classroom management and toward the collective functioning of the members of the school community.

FIGURE 3. Continuum of School-Wide Positive Behavior Support



### ***IMPLEMENTATION OF SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT***

When schools experience challenging situations, a common response is to organize staff development events in which “experts” in the area of concern validate and describe the problems or concerns, present a range of possible solutions, and encourage staff to consider the adoption of one or more proposed solutions. When these events are completed, the assumption is that staff members will adopt and implement a solution. Unfortunately, depending on the capacity of the staff and the level of available supports, the quality and sustainability of the implementation can be highly variable and short-lived (Latham, 1988; Slavin, 1989). The school-wide PBS approach has combined its behavior analytic roots with the adoption of practices and principles of organizational behavior management (Axelrod, 1991; Binder, 1991; Gilbert, 1978; Gilbert & Gilbert, 1992; Lindsley, 1992) to improve a school’s

capacity to respond. In particular, schools simultaneously must consider outcomes, data-based decision making, research-validated practices, and systems in their staff development efforts. The goal is to establish “host environments” that provide the processes and supports that increase a school’s capacity to adopt and sustain the use of evidence-based practices (Zins & Ponte, 1990). Five basic steps characterize the establishment of these host environments and implementation of a school-wide PBS approach (see Figure 4).

### ***Step 1. Establish Leadership Team***

Individual staff members cannot affect change that substantially improves the manner in which systems function. School-wide leadership teams are needed to guide the implementation of school-wide PBS. This team should be composed of individuals who are respected by their colleagues, are representative of the school (e.g., by grade level or department), collectively have behavioral competence, have a regular and efficient means of communicating with the school staff as a whole, and are endorsed actively and vigorously by their principal. Principals must be members of this team because they have unique leadership capacities and decision making authority. Parents also are recommended to serve as team members because they can provide a voice and link to the school for families and community members. This team should meet regularly (at least monthly), and its meetings should be guided by data and a proactive problem solving approach.

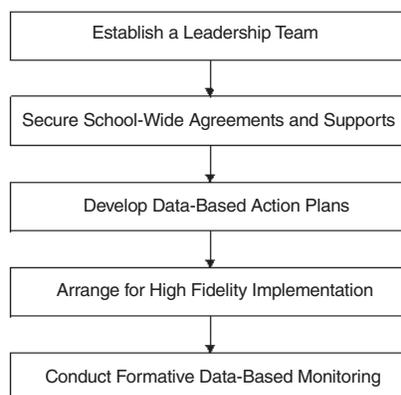
Schools should not “add” this team to their administrative organizations without first assessing what team or committee structures already exist. From an efficiency perspective, schools should endorse and activate leadership teams that have clearly and uniquely described

- a. purpose statements,
- b. target groups,
- c. measurable outcome/progress indicators,
- d. memberships,
- e. relationships with school improvement goals and objectives.

Whenever possible, the number of committees and teams should be minimized to avoid redundancies and inefficiencies, and a single school-wide leadership role should be established regarding all behavior related initiatives, actions, and decisions. This team has the responsibility for reviewing school needs and establishing staff and school improvement action plans, including staff development activities.

FIGURE 4. Implementation Steps for School-Wide PBS

Establishing a School-Wide Positive Behavior Support System



### ***Step 2. Secure School-Wide Agreements and Supports***

If schools are to establish the capacity to support the efficient adoption and sustained use of evidence-based practices, leadership teams must secure staff agreements regarding the

- a. nature and priority of staff development efforts and needs,
- b. long term (3-4 year) commitment and investment in the effort,
- c. importance of taking a preventive and instructional approach to behavior management and school-wide discipline.

To maximize the impact of action plan efforts, we recommend that action plans not be put into full implementation until more than 80% of the staff support these agreements.

In addition to staff agreements, adequate resource support is needed to maximize achievement of outcomes. Fiscal supports, implementation materials, ongoing training opportunities, time, etc., are needed. Much of this support is arranged and/or provided by school administrators who continuously make decisions about resource allocations, monitor and occasion compliance to agreements, and staffing arrangements.

### ***Step 3. Develop Data-Based Action Plan***

After the leadership team has secured general school-wide agreements and supports, data are collected and reviewed to determine which school practices need to be adopted, maintained, improved, and/or eliminated within each of the four school-wide systems. A variety of data types should be reviewed, for example:

- a. attendance and tardy patterns;
- b. office discipline referrals;
- c. detention, suspension, and expulsions rates; and
- d. behavioral incidence data.

In addition, valuable information can be obtained from school staff through self-assessment inventories, surveys, or checklists. For example, Sugai and colleagues have developed a self-assessment instrument (Effective Behavior Support Survey) that guides school personnel through a process to identify the extent to which key practices and processes are “in place” and need “to be improved” across school-wide, classroom, nonclassroom, and individual student systems (Lewis & Sugai, 1999; Sugai, Horner, & Todd, 2000). Based on a review of response patterns across the entire staff and an examination of school discipline data, an action plan is developed. A sample of items from the EBS Survey and from each of the four systems is given in Figure 5.

An action plan usually focuses on efforts to improve one system-related objective at a time. Typical of most action plans, PBS action plans indicate

- a. measurable outcomes,
- b. a 1-3 year timeline of events,
- c. participating and leadership staff members,
- d. specific activities that lead to measurable outcomes,
- e. staff development and training activities,
- f. resource and support needs.

As emphasized in the EBS Survey, PBS action plans should focus on the identification, adoption, and sustained use of research-validated and best practices. Most teams begin with an action plan that focuses on establishing or enhancing the school-wide discipline system that is foundational for the other three systems and can involve all staff, all students, and all settings. However, consideration should be directed toward all four of the systems described previously:

- a. school-wide,
- b. non-classroom settings,
- c. classrooms,
- d. individual students.

#### ***Step 4. Arrange for High Fidelity of Implementation***

A school could purchase or develop the best available school-wide discipline curriculum and write the best lesson plans for teaching classroom expectations, and still fail to achieve its action plan outcomes. This failure is not necessarily because interest and motivation are lacking but because the capacity to implement the features of their action plan with high fidelity (accuracy) over time is lacking.

Schools should not attempt to implement any action plan without high confidence that *all* staff are fluent with the skills and strategies of the plan, adequate supports are available to sustain staff member implementation efforts, and appropriate leadership is in place to guide the implementation effort. For example, before the practices and strategies of any action plan are implemented fully, school-wide PBS systems strive toward

- a. team-based leadership and implementation,
- b. agreements from at least 80% of the staff to implement,
- c. active and strong administrative leadership and support,
- d. high skill fluency before implementation by any staff member (i.e., opportunities to practice),
- e. practical and efficient aides for implementation (e.g., scripts, checklists),
- f. adequate professional development and training opportunities,
- g. high levels of positive reinforcement for staff implementation efforts and successes.

#### ***Step 5. Conduct Formative Data-Based Monitoring***

One of the best positive reinforcers to support school-wide PBS implementation efforts is knowledge that action plan outcomes are being achieved. However, to be able to judge whether adequate progress is being made, data systems must be in place. A variety of data types can be collected, for example, attendance and tardy rates, suspensions and expulsions. One of the best naturally available data sources is behavioral incidents data that usually are collected in the form of office discipline referrals (ODR). Like any data source, ODR data are only as good as the systems that are in place to determine when to give and process them.

FIGURE 5. Sample of Items from the EBS Survey and from Each of the Four Systems

School-Wide Systems Items:
<ul style="list-style-type: none"> <li>2. Expected student behaviors are taught directly.</li> <li>3. Expected student behaviors are rewarded regularly.</li> <li>6. Distinctions between office vs. classroom managed problem behaviors are clear.</li> <li>10. School administrator is an active participant on the behavior support team.</li> <li>11. Staff receives regular (monthly/quarterly) feedback on behavior patterns.</li> <li>14. School-wide behavior support team has a budget for (a) teaching students, (b) ongoing rewards, and (c) annual staff planning.</li> </ul>
Non-Classroom Setting System Items:
<ul style="list-style-type: none"> <li>2. School-wide expected student behaviors are taught in non-classroom settings.</li> <li>3. Supervisors actively supervise (move, scan, and interact) students in non-classroom settings.</li> <li>4. Rewards exist for meeting expected student behaviors in non-classroom settings.</li> <li>7. Staff receive regular opportunities for developing and improving active supervision skills.</li> <li>8. Status of student behavior and management practices are evaluated quarterly from data.</li> </ul>
Classroom Setting System Items:
<ul style="list-style-type: none"> <li>3. Expected student behavior and routines in classrooms are taught directly.</li> <li>4. Expected student behaviors are acknowledged regularly (positively reinforced) (&gt; 4 positives to 1 negative).</li> <li>6. Procedures for expected and problem behaviors are consistent with school-wide procedures.</li> <li>8. Instruction and curriculum materials are matched to student ability (math, reading, language).</li> <li>9. Students experience high rates of academic success (<math>\geq</math> 75% correct).</li> <li>11. Transitions between instructional and non-instructional activities are efficient and orderly.</li> </ul>
Individual Student Support System Items:
<ul style="list-style-type: none"> <li>1. Assessments are conducted regularly to identify students with chronic problem behaviors.</li> <li>3. A behavior support team responds promptly (within 2 working days) to students who present chronic problem behaviors.</li> <li>5. Local resources are used to conduct functional assessment-based behavior support planning (~10 hrs/week/student).</li> <li>6. Significant family and/or community members are involved when appropriate and possible.</li> <li>8. Behavior is monitored and feedback provided regularly to the behavior support team and relevant staff.</li> </ul>

Every ODR is representative of the decisions and actions of three entities: the student who engages in a rule-violating behavior, the staff member who observes the rule-violating behavior and initiates the ODR, and the administrator who processes the ODR. Each one of these individuals influences whether an ODR is counted, and what is highlighted in the referral.

Thus, to increase confidence in the data that are used to monitor a school-wide PBS system, three conditions must be satisfied. First, “good” (reliable and valid) information must be collected and entered. For example, for school-wide discipline systems, clear and discriminating definitions for the range of rule-violating behaviors must be developed, efficient steps for processing ODRs must be specified, a range of consequences should be specified, etc. Schools should only collect information that will be used to answer questions, evaluate progress, and improve action plan practices. Collecting data without a clear reason is likely to hinder the sustained use of general data-based decision making.

Second, mechanisms and processes should be in place for storing, manipulating, and summarizing data. Usually, a staff member assumes responsibility for entering ODR information into a spreadsheet or database software program and “builds” macros and formulas for creating tables and graphs. Unfortunately, the level of expertise required to operate this system is high, and the speed with which reports and graphs can be produced is not sufficient for daily or weekly decision making. A number of data management developers are attempting to address these efficiency and relevance questions. One example is a Web-based program called the “School-Wide Information System” (SWIS) (go to [www.swis.org](http://www.swis.org) for information). SWIS allows school staff to enter password protected ODR information (e.g., problem behavior type, location, time of day, grade, possible motivation) through any platform that can access the Internet and produce immediately a number of standard tabular and/or graphic displays (e.g., # of referrals/day/month, # by location, # by time of day) or customizable displays (e.g., by individual student, by grade, by teacher). Staff members are more likely to engage in data-based decision making if the effort, processes, and technical skills for data collection, summarization, and presentation are not excessively time-consuming, effortful, or complicated.

Third, structures and processes must be in place to occasion and facilitate data-based decision making. For example, a schedule for bi-weekly data presentations and reviews to all staff should be in place. A team-based data review process should precede presentation to all staff. Specific actions or steps should evolve from each data-review activity. Being able to see change in student performance can be an effective and relevant positive reinforcer for sustaining staff implementation efforts.

### **CONCLUSION**

The purpose of this paper is to describe how school-wide PBS has evolved out of a need for a more proactive approach to school discipline

and safety and from a strong behavior analytic tradition of studying and improving human behavior. PBS is defined in terms that reflect this need and tradition, and features of school-wide PBS are summarized. Most importantly, a central message is that PBS is not a collection of behavior modification practices. Rather, PBS represents a balanced integration of four key features:

- a. clearly defined and socially important outcomes for students and their families and teachers,
- b. research-validated practices,
- c. data-based decision making processes,
- d. systems that support high fidelity implementation.

Finally, a generic five-step implementation process for school-wide PBS is proposed as a way to operationalize these four features. Central to this process is a strong bias toward establishing structures and processes that increase the capacity of a school to adopt and sustain use of relevant research-validated practices that address the unique characteristics and needs of individual schools. Clearly, schools will need to work collaboratively with families, businesses, local and state agencies, and researchers, but much can be done in and by schools to improve school climate, maximize academic and social outcomes, and create safer school environments. However, schools will need to work smarter in identifying important outcomes and implementing what they know works best in achieving these outcomes.

## REFERENCES

- Albert, P., & Troutman, A. (1999). *Applied behavior analysis for teachers*. (5th ed.). Columbus, OH: Merrill.
- Axelrod, S. (1991). The problem: American education. The solution: Use behavior analytic technology. *Journal of Behavioral Education, 1*, 275-282.
- Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1*, 91-97.
- Becker, W. C. (1971). *An empirical basis for change in education: Selections on behavioral psychology for teachers*. Chicago: Science Research Associates.
- Becker, W. C., Madson, C.H., Jr., Arnold, C.R., & Thomas, D.R. (1967). The contingent use of teacher attention and praise in reducing classroom behavior problems. *Journal of Special Education 1967*, 287-307.
- Berliner, D. C. (1985). Effective classroom teaching: The necessary but not sufficient condition for developing exemplary schools. In G. R. Austin & H. Garber (Eds.), *Research on exemplary schools*. Orlando, FL: Academic Press.
- Binder, C. V. (1991). Marketing measurably effective instructional methods. *Journal of Behavioral Education, 1*, 317-328.

- Brophy, J. E. (1979). Teacher behavior and student learning. *Educational Leadership*, 37, 33-38.
- Brophy, J., & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.) (pp. 328-3375). New York: MacMillan.
- Carnine, D. (1992). Expanding the notion of teacher's rights: Access to tools that work. *Journal of Applied Behavior Analysis*, 25, 13-19.
- Carnine, D. (1995). Trustworthiness, useability, and accessibility of educational research. *Journal of Behavioral Education*, 5, 251-258.
- Carnine, D. (1997). Bridging the research-to-practice gap. *Exceptional Children*, 63, 513-521.
- Center on Positive Behavioral Interventions and Supports (2001). Defining positive behavior support. Unpublished manuscript. Author.
- Chapman, D., & Hofweber, C. (2000). Effective behavior support in British Columbia. *Journal of Positive Behavior Interventions*, 2, 235-237.
- Colvin, G., & Fernandez, E. (2000). Sustaining effective behavior support systems in an elementary school. *Journal of Positive Behavior Interventions*, 2, 251-253.
- Colvin, G., & Lazar, M. (1997). *The effective elementary classroom: Managing for success*. Longmont, CO: Sopris West.
- Colvin, G., Kame'enui, E. J., & Sugai, G. (1993). Reconceptualizing behavior management and schoolwide discipline in general education. *Education and Treatment of Children*, 16, 361-381.
- Colvin, G., Sugai, G., Good, R., & Lee, Y. (1997). Effect of active supervision and precorrection on transition behaviors of elementary students. *School Psychology Quarterly*, 12, 344-363.
- Colvin, G., Sugai, G., & Kame'enui, E. J. (1994). *Proactive schoolwide discipline: Implementation manual*. Project PREPARE. Behavioral Teaching and Research, College of Education, University of Oregon. Eugene.
- Colvin, G., Sugai, G., & Patching, W. (1991). Pre-correction: An instructional strategy for managing predictable behavior problems. *Intervention in School and Clinic*, 28, 143-150.
- Comer, J. (1985). The Yale-New Haven primary prevention project: A follow-up study. *Journal of the American Academy of Child Psychiatry*, 24, 154-160.
- Elliot, D.S., Hamburg, B.A., & Williams K.R. (1998). *Violence in American schools: A new perspective*. Cambridge: Cambridge University Press.
- Emmer, E., Evertson, C., & Anderson, L. (1980). Effective classroom management at the beginning of the school year. *Elementary School Journal*, 80, 219-231.
- Evertson, C.M., & Emmer, E.T. (1982). Effective management at the beginning of the school year in junior high classes. *Journal of Educational Psychology*, 74, 485-498.
- Gettinger, M. (1988). Methods of proactive classroom management. *School Psychology Review*, 17, 227-242.
- Gilbert, T.F. (1978). *Human competence: Engineering worthy performance*. New York: McGraw Hill.
- Gilbert, T. F., & Gilbert, M. B. (1992). Potential contributions of performance science to education. *Journal of Applied Behavior Analysis*, 25, 43-49.
- Gottfredson, D.C. (1987). An evaluation of an organization development approach to reducing school disorder. *Evaluation Review*, 11, 739-763.

- Gottfredson, D.C., Gottfredson, G.D., & Hybl, L.G. (1993). Managing adolescent behavior: A multiyear, multischool study. *American Educational Research Journal, 30*, 179-215.
- Gottfredson, D.C., Gottfredson, G.D., & Skroban, S. (1996). A multimodel school based prevention demonstration. *Journal of Adolescent Research, 11*, 97-115.
- Gottfredson, D.C., Karweit, N.L., & Gottfredson, G.D. (1989). *Reducing Disorderly Behavior in Middle Schools*. (Report No. 47). Baltimore, MD: John Hopkins University, Center of Research on Elementary and Middle Schools.
- Guerra, N.G., & Williams, K.R. (1996). *A program planning guide for youth violence prevention: A risk-focused approach*. Center for the Study and Prevention of Violence. University of Colorado, Boulder.
- Gunter, P.L., Denny, R.K., Jack, S.L., Shores, R.E., & Nelson, C.M. (1993). Aversive stimuli in academic interactions between students with serious emotional disturbance and their teachers. *Behavioral Disorders, 19*, 265-274.
- Gunter, P.L., Jack, S.L., DePaepe, P., Reed, T.M., & Harrison, J. (1994). Effects of challenging behaviors of students with EBD on teacher instructional behavior. *Preventing School Failure, 38*, 35-46.
- Heward, W. L., Heron, T. E., Hill, D. S., & Trap-Porter, J. (1984). *Focus on behavior analysis in education*. Columbus, OH: Merrill.
- Horner, R. H. (1994). Functional assessment: Contributions and future directions. *Journal of Applied Behavior Analysis, 27*, 401-404.
- Horner, R. H., & Sugai, G. (2000). School-wide behavior support: An emerging initiative (special issue). *Journal of Positive Behavioral Interventions, 2*, 231-232.
- Individuals with Disabilities Education Act Amendments of 1997, 20 U.S.C §1400 *et seq.* (1997).
- Jack, S.L., Shores, R.E., Denny, R.K., Gunter, P.L., DeBriere, T., & DePaepe, P. (1996). An analysis of the relationship of teachers' reported use of classroom management strategies on types of classroom interactions. *Journal of Behavioral Education, 6*, 67-87.
- Jenson, W. R., Sloane, H. N., & Young, K. R. (1979, 1988). *Applied behavior analysis in education: A structured teaching approach*. Englewood Cliffs, NJ: Prentice Hall.
- Kame'enui, E. J., & Darch, C. B. (1995). *Instructional classroom management: A proactive approach to behavior management*. White Plains, NY: Longman.
- Kazdin, A. E. (1982). Applying behavioral principles in the schools. In C. R. Reynolds & T. B. Gutkin (Eds.), *The handbook of school psychology*. (pp. 501-529). New York: Wiley.
- Kerr, M. M., & Nelson, C. M. (1983). *Strategies for managing behavior problems in the classroom*. Columbus, OH: Merrill.
- Knoff, H. M. (1995). Best practices in facilitating school-based organizational change and strategic planning. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology-III*. Silver Spring, MD: National Association of School Psychologists.
- Kounin, J. (1970). *Discipline and group management in classrooms*. New York: Holt, Rinehard, & Winston.
- Langland, S., Lewis-Palmer, T., & Sugai, G. (1998). Teaching respect in the classroom: An instructional approach. *Journal of Behavioral Education, 8*, 245-262.
- Latham, G. (1992). Interacting with at-risk children: The positive position. *Principal, 72*(1), 26-30.

- Latham, G.I. (1988). The birth and death cycles of educational innovations. *Principal*, 68 (1), 41-44.
- Lee, Y., Sugai, G., & Horner, R. (1999). Effect of component skill instruction on math performance and on-task, problem, and off-task behavior of students with emotional and behavioral disorders. *Journal of Positive Behavioral Interventions*, 1, 195-204.
- Lewis, T. J., Colvin, G., & Sugai, G. (in press). The effects of pre-correction and active supervision on the recess behavior of elementary school students. *School Psychology Quarterly*.
- Lewis, T. J., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive school-wide management. *Focus on Exceptional Children*, 31(6), 1-24.
- Lewis-Palmer, T., Sugai, G., & Larson, S. (1999). Using data to guide decisions about program implementation and effectiveness. *Effective School Practices*, 17(4), 47-53.
- Lindsley, O. R. (1992). Why aren't effective teaching tools widely adopted? *Journal of Applied Behavior Analysis*, 25, 21-26.
- Lohrman-O'Rourke, S., Knoster, T., Sabatine, K., Smith, D., Horvath, B., & Llewellyn, G. (2000). School-wide application of PBS in the Bangor Area School District. *Journal of Positive Behavior Interventions*, 2(4), 238-240.
- Madsen, C.H. Jr., Becker, W.C., & Thomas, D.R. (1968). Rules, praise, and ignoring: Elements of elementary classroom context. *Journal of Applied Behavior Analysis* 1, 139-150.
- Martens, B. K., & Kelly, S. Q. (1993). A behavioral analysis of effective teaching. *School Psychology Quarterly*, 8, 10-26.
- Mayer, G. (1995). Preventing antisocial behavior in the schools. *Journal of Applied Behavior Analysis*, 28, 467-478.
- Mayer, G. R., & Butterworth, T. (1979). A preventive approach to school violence and vandalism: An experimental study. *Personnel and Guidance Journal*, 57, 436-441.
- Mayer, G. R., Butterworth, T., Nafpaktitis, M., & Sulzer-Azaroff, B. (1983). Preventing school vandalism and improving discipline: A three year study. *Journal of Applied Behavior Analysis*, 16, 355-369.
- McCord, J. (Ed.) (1995). *Coercion and punishment in long-term perspective*. New York: Cambridge University Press.
- Nakasato, J. (2000). Data-based decision making in Hawaii's behavior support effort. *Journal of Positive Behavior Interventions*, 2, 247-251.
- Nelson, J. R. (1996). Designing schools to meet the needs of students who exhibit disruptive behavior. *Journal of Emotional and Behavioral Disorders*, 4, 147-161.
- Nelson, J. R., Johnson, A., & Marchand-Martella, N. (1996). Effects of direct instruction, cooperative learning, and independent learning practices on the classroom behavior of students with behavioral disorders: A comparative analysis. *Journal of Emotional and Behavioral Disorders*, 4, 53-62.
- Nelson, J. R., Martella, R., & Galand, B. (1998). The effects of teaching school expectations and establishing a consistent consequence on formal office disciplinary actions. *Journal of Emotional and Behavioral Disorders*, 6, 153-161.
- Nelson, J.R., Martella R.M., & Marchand-Martella, N. (in press). Maximizing student learning: The effects of a comprehensive school-based program for preventing problem behaviors. *Journal of Emotional and Behavioral Disorders*.

- Nersesian, M., Todd, A., Lehmann, J., & Watson, J. (2000). School-wide behavior support through district-level system change. *Journal of Positive Behavior Interventions, 2*, 244-247.
- Northwest Regional Education Laboratory (1984). *Effective schooling practices: A research synthesis*. Portland, OR: Author.
- O'Neill, R.E., Horner, R.H., Albin, R.W., Sprague, J.R., Storey, K., & Newton, J.S. (1997). *Functional assessment and program development for problem behavior: A practical handbook*. Pacific Grove, CA: Brookes/Cole.
- Paine, S. C., Radicchi, J., Rosellini, L. C., Deutchman, L., & Darch, C. B. (1983). *Structuring your classroom for academic success*. Champaign, IL: Research Press.
- Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys*. Eugene, OR: Castalia Press.
- Peters, M. T., & Heron, T. E. (1993). When the best is not good enough: An examination of best practice. *Journal of Special Education, 26*, 371-385.
- Rose, L. C., & Gallup, A. M. (1998). The 30th annual Phi Delta Kappan/Gallup poll of the public's attitude toward the public schools. *Kappan, 79*, 41-56.
- Rosenshine, B. V. (1985). Synthesis on research on explicit teaching. *Educational Leadership, 43*, 60-69.
- Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.) (pp. 376-391). New York: MacMillan.
- Sadler, C. (2000). Effective behavior support implementation at the district level: Tigard-Tualatin School District. *Journal of Positive Behavior Interventions, 2*(4), 241-243.
- Shores, R.E., Jack, S.L., Gunter, P.L., Ellis, D.N., DeBriere, T.J., & Wehby, J.H. (1993). Classroom interactions of children with behavior disorders. *Journal of Emotional and Behavior Disorders, 1*, 27-39.
- Skiba, R. J., & Deno, S. J. (1991). Terminology and behavior reduction: The case against punishment. *Exceptional Children, 57*, 293-313.
- Slavin, R.E. (1989). PET and the pendulum: Faddism in education and how to stop it. *Phi Delta Kappan* June 1989, 752-759.
- Smith, M. A., & Misra, A. (1992). A comprehensive management system for students in regular classrooms. *Elementary School Journal, 92*, 353-371.
- Sprick, R. S., & Nolet, V. (1991). Prevention and management of secondary-level behavior problems. In G. Stoner, M. R. Shinn, & H. M. Walker (Eds.), *Interventions for achievement and behavior problems* (pp. 519-538). Silver Spring, MD: National Association of School Psychologists.
- Sprick, R., Sprick, M., & Garrison, M. (1992). *Foundations: Developing positive school-wide discipline policies*. Longmont, CO: Sopris West.
- Sugai, G., & Horner, R. H. (1999). Discipline and behavioral support: Preferred processes and practices. *Effective School Practices, 17*, 10-22.
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T. J., Nelson, C. M., Scott, T., Liaupsin, C., Sailor, W., Turnbull, A. P., Turnbull, H. R., III, Wickham, D., Reuf, M., & Wilcox, B. (2000). Applying positive behavioral support and functional behavioral assessment in schools. *Journal of Positive Behavioral Interventions, 2*, 131-143.
- Sugai, G., Horner, R.H., & Todd, A.W. (2000). Effective Behavior Support (EBS Survey): Assessing and planning behavior support in schools. University of Oregon. Eugene.

- Sugai, G., Lewis-Palmer, T., & Hagan-Burke, S. (1999-2000). Overview of the functional behavioral assessment process. *Exceptionality*, 8, 149-160.
- Sugai, G., Sprague, J. R., Horner, R. H., & Walker, H. M. (2000). Preventing school violence: The use of office discipline referrals to assess and monitor school-wide discipline interventions. *Journal of Emotional and Behavioral Disorders*, 8, 94-101.
- Sulzer-Azaroff, B., & Mayer, G. R. (1986). *Achieving educational excellence: Using behavioral strategies*. New York: Holt, Rinehart & Winston.
- Sulzer-Azaroff, B., & Mayer, G. R. (1994). *Achieving educational excellence: Behavior analysis for achieving classroom and schoolwide behavior change*. San Marcos, CA: Western Image.
- Taylor-Greene, S., Brown, D., Nelson, L., Longton, J., Gassman, T., Cohen, J., Swartz, J., Horner, R. H., Sugai, G., & Hall, S. (1997). School-wide behavioral support: Starting the year off right. *Journal of Behavioral Education*, 7, 99-112.
- Taylor-Greene, S.J., & Kartub, D.T. (2000). Durable implementation of school-wide behavior support: The high five program. *Journal of Positive Behavior Interventions*, 2, 233-235.
- Thomas, D.R., Becker, W.C., & Armstrong, M. (1968). Production and elimination of disruptive classroom behaviors by systematically varying teacher's behavior. *Journal of Applied Behavior Analysis*, 1, 35-45.
- Tolan, P., & Guerra, N. (1994). What works in reducing adolescent violence: An empirical review of the field. Center for the Study and Prevention of Violence. University of Colorado, Boulder.
- US Department of Health and Human Services (2001). *Youth violence: A report of the surgeon general*. Washington, DC: Office of the Surgeon General.
- Vargas, J. S. (1977). *Behavioral psychology for teachers*. New York: Harper Row.
- Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, 4, 193-256.
- Weissberg, R. P., Caplan, M. Z., & Sivo, P. J. (1989). A new conceptual framework for establishing school-based social competence promotion programs. In L. A. Bond & B. E. Compas (Eds.), *Primary prevention and promotion in the schools*. (pp. 255-296). Newbury Park, CA: Sage.
- Wolery, M. R., Bailey, D. P., Jr., & Sugai, G. (1988). *Effective teaching: Principles and procedures of applied behavior analysis with exceptional students*. Boston, MA: Allyn & Bacon.
- Wong, H. K., & Wong, R. T. (1991). *The first days of school: How to be an effective teacher*. Sunnyvale, CA: Harry K. Wong.
- Zins, J. E., & Ponte, C. R. (1990). Best practices in school-based consultation. In A. Thomas and J. Grimes (Eds.), *Best practices in school psychology-II* (pp. 673-694). Washington, DC: National Association of School Psychologists.