

# What Is Special About Special Education for Students with Emotional or Behavioral Disorders?

**Timothy J. Landrum**, *University of Virginia*

**Melody Tankersley**, *Kent State University*

**James M. Kauffman**, *University of Virginia*

Although students with emotional or behavioral disorders have historically experienced poor school outcomes compared to other students with and without disabilities, a number of effective practices are available that can make special education for students with emotional or behavioral disorders special. Within the three broad intervention areas of inappropriate behavior, academic learning problems, and interpersonal relationships, we provide a brief overview of a number of empirically validated practices. We argue that teaching students with emotional or behavioral disorders demands unique interventions that are beyond that typically available or necessary in general education. We conclude that special education *is* special for students with emotional or behavioral disorders and that it can be even more special with greater efforts at implementing research-based practices early, with integrity, and sustaining these interventions over the course of students' school careers.

Describing what is special about special education for students with emotional or behavioral disorders (EBD) presents a uniquely difficult challenge, given that students with EBD probably experience less school success than any other subgroup of students with or without disabilities. It has been well documented that students with disabilities experience poorer outcomes than do their nondisabled peers (e.g., Blackorby & Wagner, 1996), but for students with EBD in particular, the outlook for school and later life success has historically been quite bleak. Students with EBD generally earn lower grades, fail more courses, are retained in grade more often, pass minimum competency tests at lower rates, and have more difficulty adjusting to adult life than do students with other disabilities (Frank, Sitlington, & Carson, 1995; Koyangi & Gaines, 1993). Perhaps one of the greatest obstacles to improving their outcomes is school attendance: It has been estimated that 43% to 56% of students with EBD drop out of school, a rate almost twice that for all students with disabilities (Marder, 1992).

This relatively negative assessment of the current state of affairs for students with EBD demands some qualification and, in fact, should not be taken as evidence of an inability to intervene effectively. For example, students with EBD are not typically identified at an early age, when their problems are most amenable to treatment (Walker et al., 1996), but much later in their development, when problems are predictably severe and intractable. Moreover, probably only a fraction of those who need intervention for their emotional or behavioral disorders are actually identified and served (Kauffman, 2001;

U.S. Department of Health and Human Services, 2001). Most likely, those served are students with the most severe problems and intense needs. Simple logic suggests that failing to identify students early and circumscribing the population to include only those with the most extreme and protracted problems does not portend success (Kauffman, 1999; Walker, Colvin, & Ramsey, 1995). Thus, it is not surprising that concerns about the effectiveness of special education are particularly serious with regard to students with EBD.

Despite the challenges associated with education and treatment of students with EBD, credible research supports a number of promising interventions (see Dunlap & Childs, 1996; Shinn, Walker, & Stoner, 2002). In this article, we address three questions with regard to the literature on effective practices for students with EBD:

1. What research-based practices offer the most promise for working effectively with students with EBD?
2. Are these effective practices implemented with regularity and fidelity in schools and classrooms?
3. Are these practices unique to the field of special education, or do they simply reflect sound educational practice?

In other words, is special education for students with EBD special?

## Effective Practices for EBD

Although there may be risk in treating the population of students with EBD as a homogenous group, it proves useful to structure a discussion of effective practice with some generalizations about the behavior and performance of students identified with EBD. First, by definition, students with EBD, compared to students without behavior problems, tend to display disproportionately high rates of inappropriate behavior and, conversely, low rates of positive behavior (Walker, Hops, & Greenwood, 1993; Walker, Shinn, O'Neill, & Ramsey, 1987). Second, they tend to experience academic difficulties that are at least related, if not causally linked, to their behavioral excesses and deficits (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Kupersmidt & Coie, 1990; Lipsey & Derzon, 1998; Lloyd, Hallahan, Kauffman, & Keller, 1998). Finally, students with EBD typically have social difficulty in relating to both peers and adults (Walker, 1995; Walker et al., 1995). In each of these three contexts—inappropriate behavior, academic learning problems, and ineffectual interpersonal relationships—we consider the extent to which the field has developed a set of effective practices. In Table 1, we have listed for each of these contexts some potential target areas for intervention and examples of specific practices that have empirical support. It should be noted that these lists are not exhaustive but representative of potential targets and effective practices that address what we believe are the areas of greatest need for most children and adolescents with EBD. Following is a brief overview of the interventions listed in Table 1.

## Interventions for Inappropriate Behavior

Although the challenges that students with EBD present can seem complex and insurmountable, one could argue that these difficulties can be explained as a combination of behavioral excesses (too much negative behavior) and deficits (not enough appropriate behavior). We do not mean to reduce the constellation of problems experienced by most students with EBD to a simple matter of contingencies; however, credible evidence has suggested that successful interventions for these students must be built on a behavioral foundation (e.g., Walker et al., 1995; Walker, Kavanagh, et al., 1998). The basic concept underlying behavioral procedures is a simple one:

1. Environmental cues, or antecedents, set the occasion for behavior.
2. Behavior occurs.
3. A consequence ensues; that is, a new stimulus is added or a stimulus already present is avoided or withdrawn (see Alberto & Troutman, 2003).

This behavioral equation allows two points for intervention—prior to the behavioral occurrence (i.e., antecedent) and after the behavior occurs (i.e., consequence).

Although a vast literature supports the application of behavioral procedures in education (e.g., Kauffman, Mostert, Trent, & Hallahan, 2002; Shinn et al., 2002; Walker et al., 1995), it is perplexing that some question the value of such interventions (e.g., Kohn, 1993), while others disagree over

TABLE 1. Promising Interventions for Students with Emotional and Behavioral Disorders (EBD)

Characteristics of students with EBD	Potential targets of intervention	Examples of effective practices
Inappropriate behavior	Excesses <ul style="list-style-type: none"> <li>• Aggression</li> <li>• Disruptive classroom behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Reinforcement (positive, differential, negative)</li> <li>• Precision requests</li> <li>• Behavioral momentum</li> </ul>
	Deficits <ul style="list-style-type: none"> <li>• Social withdrawal</li> <li>• Noncompliance</li> </ul>	<ul style="list-style-type: none"> <li>• Time-out</li> <li>• Response cost</li> <li>• Group-oriented contingencies (e.g., the Good Behavior Game)</li> <li>• Continuous monitoring of student performance (e.g., single-subject research evaluation methods)</li> </ul>
Academic learning problems	<ul style="list-style-type: none"> <li>• Achievement</li> <li>• Attention to task</li> <li>• Academic responding</li> <li>• Reciprocal Peer Tutoring</li> </ul>	<ul style="list-style-type: none"> <li>• Direct instruction</li> <li>• Self-monitoring</li> <li>• ClassWide Peer Tutoring</li> <li>• Continuous monitoring of student performance (e.g., curriculum-based measurement, single-subject research evaluation methods)</li> </ul>
Unsatisfactory interpersonal relationships	<ul style="list-style-type: none"> <li>• Social skills</li> <li>• Language skills</li> </ul>	<ul style="list-style-type: none"> <li>• Direct instruction of individually targeted behaviors</li> <li>• Modifying antecedents and consequences</li> <li>• Opportunity to practice in natural settings</li> </ul>

fundamental aspects of behavioral concepts (see Biederman, Davey, Ryder, & Franchi, 1994; Ward, 1995). In our view, behavioral procedures are woefully misunderstood (see Maag, 2001; Walker, Forness, et al., 1998) and, as we discuss in a later section, may frequently be implemented incorrectly or insufficiently, leading to the erroneous conclusion that behavioral procedures do not work. We take the overwhelming empirical evidence that has accrued over the past 30 years as good reason for educators working with students with EBD to focus considerable attention on altering antecedents and consequences in the environment to increase the likelihood that appropriate behavior will occur and reduce the likelihood that inappropriate behavior will occur.

**Altering Antecedents.** Among the most challenging and far-reaching behaviors frequently demonstrated by students with EBD is noncompliance (Patterson, Reid, & Dishion, 1992; Walker, 1995). *Noncompliance in school situations* refers to refusal of or lack of appropriate response to the directive of an adult who has made a request of the student (Walker & Walker, 1991). The likelihood of a student complying with a directive may be enhanced by the way the directive is delivered—an antecedent to compliance. Two methods of framing directives have been shown to increase the probability of students' complying: precision requests (Montgomery & Ayllon, 1993; Neville & Jenson, 1984; Rhode, Jensen, & Reavis, 1993) and behavioral momentum, also called interspersal training and pretask requesting (Mace et al., 1988; Munk & Repp, 1994; Singer, Singer, & Horner, 1987). *Precision requests* involve delivering directives in a format that (a) is predictable for students (uses discriminative stimuli), (b) incorporates consequences (reinforcement for compliance and punishment for noncompliance), and (c) provides opportunity for the child to comply (wait time). *Behavioral momentum* involves the teacher delivering a set of high-probability directives (i.e., those that the student is most likely to engage in or comply with) before delivering the low-probability directive (i.e., the request that the student is most likely to refuse).

**Altering Consequences.** Consequences occur after the production of a behavior and have the effect of either increasing or decreasing the future rate or probability of the behavior. Reinforcement is the consequence if the future rate of the behavior increases, and punishment is the consequence if the future rate of the behavior decreases. One of the most obvious examples of altering consequences in classrooms involves an easy-to-implement application of reinforcement. Specifically, the effect of positive teacher attention, or praise, on the social and academic behavior of students with behavioral problems is well established. Even two decades ago, Strain, Lambert, Kerr, Stagg, and Lenkner (1983) suggested that "literally hundreds of classroom based studies have shown that teachers' delivery of social reinforcement can result in improved academic performance . . . rule-following and good school deportment . . . cognitive and linguistic performance . . . and in-

creased social responsiveness" (p. 243). Descriptions of praise and its effective use are abundant in the special education literature (e.g., Alberto & Troutman, 2003). By definition, praise must first be contingent (i.e., delivered only when a targeted appropriate behavior is displayed); to be effective, it should also be immediate, specific, and descriptive, so that the student understands exactly what behavior is being acknowledged (Sutherland, Copeland, & Wehby, 2001); and finally, it should result in an increase in the occurrence of the behavior targeted. Indeed, for any consequence to be a reinforcer, there must be an increase in the future rate of the behavior.

Punishments are consequences that reduce the occurrence of behavior. There are four general classes of punishment:

1. those that rely on reinforcement strategies (e.g., differential reinforcement of other behavior, differential reinforcement of incompatible behavior);
2. extinction (terminating reinforcement);
3. removal of desirable stimuli; and
4. presentation of aversive stimuli (Alberto & Troutman, 2003).

Although each class of punishment uses different techniques, all four classes claim the same effect of reducing behavior. Given its obvious focus on negative behavior and behavior reduction, punishment as a whole has been the source of some controversy (see Repp & Singh, 1990). However, this controversy is primarily aimed at one class of punishment—the presentation of aversive stimuli—because the potential for misuse of aversives is great.

Because of the typically well-developed nature of the behavioral problems of students with EBD (Patterson et al., 1992), no single technique will be sufficient to make behavioral progress for most of these students. Therefore, use of punishment techniques to reduce inappropriate behaviors is often necessary in conjunction with use of reinforcement techniques to teach or increase appropriate behavior. Evidence suggests that two punishment techniques in particular, time-out from positive reinforcement (Salend & Gordon, 1987) and response cost (Proctor & Morgan, 1991), are among the easiest to implement and the most effective strategies available to the classroom teacher for reducing students' inappropriate behaviors (Walker, 1995; Witt & Elliott, 1982). Time-out from positive reinforcement involves the student losing the opportunity to be reinforced for a specified amount of time when inappropriate behavior occurs, and response cost involves the removal of a privilege or an earned reinforcer when inappropriate behavior occurs. In both cases, the techniques are designed to reduce the frequency or rate of negative behavior, but neither involves the delivery of aversives.

Consequences, whether reinforcement or punishment, can be delivered individually or to groups of students to alter the occurrence of behavior. Group-oriented contingencies are those in which consequences for the entire group are based

on the performance of one or more individuals within the group (Kauffman et al., 2002). The Good Behavior Game (GBG), for example, has repeatedly been shown to decrease disruptive and aggressive behaviors in the classroom (Darveaux, 1984; Dolan et al., 1993; Harris & Sherman, 1973). Originally introduced by Barrish, Saunders, and Wolf (1969), the GBG relies on the presentation of group contingencies in the context of team competition that enlists peer influence for supporting positive behavior. A body of research has shown that while playing the GBG, students display fewer episodes of disruptiveness, such as being out of seat and talking out (see Tankersley, 1995).

### *Interventions for Academic Learning Problems*

Examining the academic problems of students with EBD demands attention to both the achievement problems that typify this population and the behavioral characteristics that probably further inhibit their school performance (see Kauffman, 2001). Although academic-related behaviors such as attention to task, academic engagement, and academic responding are critical for making students available for learning, improvements in these behaviors may be short-lived if students do not simultaneously receive appropriate instruction for their skill deficits (Broughton & Lahey, 1978). Consequently, interventions must target not only effective instruction designed to enhance achievement (e.g., direct instruction) but also learning strategies that enhance students' ability to attend to instruction, retain information, and apply knowledge in appropriate contexts.

Among instructional strategies, direct instruction has perhaps the richest empirical history in enhancing the academic achievement of struggling learners. As Walker et al. (1995) argued, though, there is a paucity of research focusing specifically on academic interventions for students with the serious behavior problems typical of EBD. Nonetheless, we agree with their assessment that "direct instruction has a number of features that are particularly suitable for meeting these challenging needs" (p. 101). One of the key advantages of direct instruction for low-achieving students is its emphasis on academic engagement. Research has shown that academic achievement is significantly related to academic engagement rates, or the proportion of instructional time during which students are engaged in learning, as demonstrated by behaviors such as attending to task, working on assignments, and participating in class activities (e.g., Greenwood, 1991; Greenwood, Delquadri, & Hall, 1984)—critical areas of behavior in which students with EBD often have problems (Walker et al., 1995). Thus, the key features of direct instruction—including the structure, sequencing, and pacing of instruction, as well as the provision of frequent corrective feedback and opportunities for practice of newly acquired skills—provide unique opportunities for advancing the academic success of students with EBD.

ClassWide Peer Tutoring (CWPT; see Delquadri, Greenwood, Whorton, Carta, & Hall, 1986) and Reciprocal Peer Tutoring (RPT; e.g., Fantuzzo, King, & Heller, 1992; Pigott, Fantuzzo, & Clement, 1986) have also been shown to increase students' academic engagement and responding rates. Both techniques use a peer-tutoring format and are based on the reinforcement principles of group-oriented contingencies. CWPT requires students to respond in a game-like format while their peer partners determine the accuracy of their responses. RPT, which has been used primarily in the context of mathematics instruction, also incorporates self-monitoring procedures. Because CWPT and RPT provide a format for peers to supervise academic responding, students can engage in direct practice of specific academic skills with opportunity for immediate error correction or reinforcement.

Attention to task is another academic-related skill that students with EBD often lack (Kauffman, 2001). At minimum, attention is the critical first step in engaging students academically so that they can best profit from instruction. Self-monitoring is one strategy that has been effective for increasing students' attention to task. The term *self-monitoring* (other terms include *self-recording* or *self-management*) refers to a set of interventions that involve teaching students systematic procedures for observing, evaluating, and recording their own behavior during specific times (e.g., during independent seatwork). A rich literature base has documented the effectiveness of self-management procedures (see reviews by Lloyd, Forness, & Kavale, 1998; Lloyd, Landrum, & Hallahan, 1991). Generally, the procedures are easy to implement, and positive results have been observed in both students' rates of on-task behavior and their academic productivity (Lloyd, Bateman, Landrum, & Hallahan, 1989).

Another important feature of effective intervention for students with EBD involves the continuous monitoring of student performance (e.g., Kauffman et al., 1991). This ongoing monitoring is as important for behavioral interventions as it is for academic instruction. In the context of academic instruction, curriculum-based measurement (CBM) uses students' performance on brief, standardized measurements based on the curriculum in which students are working as the basis for decision making (Deno, 1985; this issue). Similarly, behavioral intervention effectiveness is also enhanced when interventions are designed (e.g., functional assessment), modified, and evaluated (i.e., comparisons are made between baseline and intervention levels of behavior) using ongoing, repeated measurement of the target behaviors (e.g., Kazdin, 1982).

### *Interventions for Interpersonal Relationships*

By definition, students with EBD invariably experience difficulty in their interpersonal relationships with peers and adults. Thus, social skills intervention is a standard component of virtually all programming for these students. Despite its prevalence, though, the effectiveness of social skills intervention is



routinely called into question. In summaries of the intervention literature based on meta-analyses (e.g., Forness, Kavale, Blum, & Lloyd, 1997; Lloyd, Forness, & Kavale, 1998), social skills interventions have not shown promising effect sizes. One explanation for this overall view of social skills interventions as ineffective is that most interventions are generic in nature (e.g., packaged curricula delivered to an entire class or even an entire school).

Gresham (2002) argued that social skills interventions for students with EBD must be based on carefully and individually targeted behaviors that serve to (a) promote skill acquisition, (b) enhance skill performance, (c) remove competing problem behaviors, and/or (d) facilitate generalization. Moreover, Walker and his colleagues (see Walker, Schwarz, Nippold, Irvin, & Noell, 1994) recommended (a) teaching social skills as one would teach any academic subject, relying on the same effective instructional procedures (e.g., direct instruction) and (b) accompanying social skills instruction with planned response opportunities, consistent feedback on performance, and the use of contingencies, particularly in natural settings as newly acquired skills are applied. Such recommendations, although not specific to one intervention per se, are based on the effective practices for academic and behavioral skills noted here earlier.

Another consideration in relation to social skills is students' ability to use language effectively. Research has shown that a large proportion of students with EBD have language disorders (see Rogers-Adkinson & Griffith, 1999), particularly in the area of pragmatic language skills—those skills associated with the use of language and nonverbal communication in social situations. Because the field is just beginning to study the relationship between language and behavior problems (Rogers-Adkinson & Griffith, 1999), specific effective practices for students with EBD have not been well established. However, techniques based on known effective practices, such as varying antecedents (e.g., directives) and providing opportunities for students to work together (e.g., CWPT), allow students to practice teacher-to-student and student-to-student communication in the natural environment of the classroom (Audet & Tankersley, 1999).

## Is Research Translated Into Practice?

Despite the growing list of research-based approaches available for intervening with the behavioral, learning, and social problems characteristic of students with EBD, the research-to-practice dilemmas that plague all of special education are equally problematic here. Research has shown that many of the effective practices are not routinely implemented (e.g., Meadows, Neel, Scott, & Parker, 1994; Shores et al., 1993). As Kauffman (1996) asserted, there may even be an inverse relationship between implementation of an instructional practice and its research support. One of the most glaring examples in the case of students with EBD is in the area of contingent

teacher attention. A number of observational studies have shown that teachers infrequently use positive attention in their classrooms. In an early study of teacher responses to behavior, Strain et al. (1983) found that teacher attention followed compliance only about 10% of the time and, further, that 82% of the children in their study who were rated low in social adjustment never received positive consequences for compliance. In classrooms specifically for students with EBD, Shores et al. (1993) found teacher praise rates as low as one per hour. Similar results from other studies led Wehby, Symons, Canale, and Go (1998) to conclude that "teacher praise . . . is almost nonexistent in classrooms for children with E/BD" (p. 51).

That teachers do not always use effective interventions has become a frequent topic in the educational literature, as a result of scholars' debates about the research-to-practice gap that most agree afflicts education (Carmine, 1997; Landrum & Tankersley, 1999). The proposition that evidence-based practices must become the standard in schools seems irrefutable. A further concern in using such practices has to do with intervention integrity. As Malouf and Schiller (1995) lamented, "When research does find its way into practice, it is often misapplied" (p. 419). Intervention integrity, also known as treatment fidelity or intervention adherence (Moncher & Prinz, 1991), is compromised when teachers fail to implement a strategy completely or implement a strategy imprecisely or inadequately. Indeed, research has shown that the extent to which interventions are implemented as designed is directly associated with the degree of behavior change (Allinder & Oats, 1997; Gansle & McMahon, 1997; Greenwood, Terry, Arreaga-Mayer, & Finney, 1992; Gresham, Gansle, Noell, Cohen, & Rosenblum, 1993).

Many factors are related to intervention integrity. Telzrow and Beebe (2002) and Gresham (1989) concluded that interventions most acceptable to teachers, and accordingly most likely to be implemented with integrity, are (a) easy to implement, (b) not time-intensive, (c) positive, (d) perceived to be effective by the teacher, and (e) compatible with the context in which the intervention will be employed (e.g., resources available, teacher experiences, treatment philosophy, instructional environment). Unfortunately, many interventions that have proven effective for addressing the behavioral and academic needs of students with EBD do not meet these criteria (Telzrow & Beebe, 2002) and therefore are not liable to be implemented with integrity, if they are implemented at all.

In addition to choosing interventions that are empirically supported and implementing them with integrity, interventions must also be implemented early in the cycle of behavioral problems. Indeed, compelling evidence has suggested that the development of behavioral disorders can be ameliorated dramatically if intervention is provided early and intensively (see Shinn et al., 2002). Longitudinal studies have shown that students who are identified with behavioral disorders have recognizable problem behavior even before entering first grade and that these problem behaviors are stable

through 3- and 6-year follow-ups (Achenbach, Howell, McConaughy, & Stranger, 1995; McConaughy, Stranger, & Achenbach, 1992). Moreover, research has shown that preventive efforts can break this cycle (see Shinn et al., 2002). Nonetheless, those in the field of EBD remain reluctant to intervene early. In fact, Kauffman (1999) listed a number of ways that professionals, in essence, “prevent prevention” of EBD, including resisting labeling for fear of stigmatization, refusing to invest resources in prevention programs, and denying the deviance of children’s behavior for reasons that may be associated with age (development) or diversity.

As schools and educators face greater and more frequent behavioral challenges (Walker, Forness, et al., 1998; Walker, Kavanagh, et al., 1998), questions remain about the capacity of both general and special education teachers to deal with the most difficult students they encounter. Unfortunately, it appears that many, if not most, teachers are inadequately trained to intervene and effectively manage the more serious behavioral and instructional challenges that students with EBD are likely to present (see Kauffman & Wong, 1991). For example, there is evidence that when teaching students with EBD in general education classes, many teachers do not modify their instructional or management techniques (Meadows et al., 1994). Moreover, even teachers of students with EBD may lack sufficient training in empirically sound practices (Bullock, Ellis, & Wilson, 1994).

## Is Education for Students with EBD Special?

Whether effective teachers of students with EBD must be uniquely trained specialists who possess distinctive skills unlike those associated with teaching nondisabled students or students with other disabilities remains unclear. Kauffman and Wong (1991) commented on this phenomenon a decade ago and concluded that teachers may indeed need to exercise a set of specialized skills in order to be effective with students with the most severe behavior disorders. Kauffman, Bantz, and McCullough (2002) described the successful application of such specialized skills in a separate class for students with EBD and suggested that the keys to success lie at least partially in the contextual variables that can characterize a separate class. As Kauffman et al. have suggested, the structure, intensity, precision, and relentlessness with which teachers deliver, monitor, and adapt instruction is surely beyond that which would be possible in a regular classroom.

The procedures outlined in Table 1 are probably appropriate for any learner. That is, they are based on principles of learning that should be effective for anyone learning a new skill or generalizing a behavior. However, it should also be clear that many of these interventions are not necessary for typically developing learners. Many of these strategies require a significant investment of teacher time, effort, and skill to ensure intervention integrity. Thus, although the procedures we

espouse for students with EBD are generally effective teaching practices, there is probably no reason to suggest that all teachers learn these skills and use them with all students. However, we do believe that any teacher specializing in the education of students with EBD should be knowledgeable about and competent in implementing, at minimum, the procedures we have suggested here—and implementing them with a very high degree of precision, which is a defining element of what makes special education special (Kauffman, 2002).

In determining whether interventions for students with EBD are effective, it is important to understand that professionals are probably not going to cure the emotional or behavioral problems that students with EBD present, given that

1. by the time they are identified for special education services, they typically have a lengthy history of difficult behavior (Duncan, Forness, & Hartsough, 1995) and are well along the typical trajectory for academic and social failure, and
2. EBD seems to be a lifelong disorder, even when preventive efforts are applied.

Recognizing that these students will probably need support throughout their school careers (e.g., Wolf, Braukmann, & Ramp, 1987) is an uncomfortable but necessary step in ensuring that their education remains special.

At best, perhaps, we will be able to alleviate some of the symptoms and reduce the frequency and intensity of the problems associated with EBD by using effective techniques to address inappropriate behavior, enhance learning, and influence social interactions; but, *this is special*. These are not techniques to which students with EBD are likely to be exposed outside of special education (Kauffman et al., 2002), yet they are the techniques that afford the strongest potential to influence learning and behavior positively. Of course, special education for students with EBD could be much more special (i.e., effective) if effective practices were (a) implemented frequently and with integrity throughout these students’ school careers with integrity and (b) implemented early, before their behavior becomes so entrenched and intractable. Only when professionals concerned with the education of students with EBD start identifying children early for services and implementing proactive, effective, preventive strategies with persistent regularity and integrity throughout their educational experiences will we see just how “special” special education for children with EBD can be.

## Conclusion

Although it could be argued that specific research conducted with participants identified with EBD is needed to verify the effectiveness of any intervention before it can be recommended as best practice for students with EBD, we counter

that many of the interventions currently available have in fact been validated with students displaying the types of learning, behavioral, and social problems that are typical of students with EBD. Although we recognize the need to expand our understanding of what works for students with EBD, we also believe that greater resources must be employed to handle the problems associated with implementing what is already known to be effective, doing so at the earliest possible age, ensuring that procedures are implemented with integrity and precision, and sustaining intervention efforts over time—in many cases, over school careers or even the life spans of individuals with EBD.

Is special education for students with EBD special? It certainly is. And it can become even more special if we take full advantage of the currently available technology of behavioral and instructional intervention. Indeed, we think it has the potential to become extraordinary.

## REFERENCES

- Achenbach, T. M., Howell, C. T., McConaughy, S. H., & Stranger, C. (1995). Six-year predictors of problems in a national sample: I. Cross-informant syndromes. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 336–347.
- Alberto, P. A., & Troutman, A. C. (2003). *Applied behavior analysis for teachers* (6th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Allinder, R. M., & Oats, R. G. (1997). Effects of acceptability on teachers' implementation of curriculum-based measurement and student achievement in mathematics computation. *Remedial and Special Education, 18*, 113–120.
- Audet, L. R., & Tankersley, M. (1999). Implications of communication and behavioral disorders for classroom management: Collaborative intervention techniques. In D. Rogers-Adkinson & P. Griffith (Eds.), *Communication disorders and children with psychiatric and behavioral disorders* (pp. 403–440). San Diego, CA: Singular.
- Barrish, H. H., Saunders, M., & Wolf, M. M. (1969). Good Behavior Game: Effects of individual contingencies for group consequences on disruptive behavior in a classroom. *Journal of Applied Behavior Analysis, 2*, 119–124.
- Biederman, G. B., Davey, V. A., Ryder, C., & Franchi, D. (1994). The negative effects of positive reinforcement in teaching children with developmental delay. *Exceptional Children, 60*, 458–465.
- Blackorby, J., & Wagner, M. (1996). Longitudinal post school outcomes of youth with disabilities: Findings from the national longitudinal transition study. *Exceptional Children, 62*, 399–414.
- Broughton, S. F., & Lahey, B. B. (1978). Direct and collateral effects of positive reinforcement, response cost, and mixed contingencies for academic performance. *Journal of School Psychology, 16*, 126–136.
- Bullock, L. M., Ellis, L. L., & Wilson, M. J. (1994). Knowledge/skills needed by teachers who work with students with severe emotional/behavior disorders: A revisit. *Behavioral Disorders, 19*, 108–125.
- Carmine, D. (1997). Bridging the research-to-practice gap. *Exceptional Children, 63*, 513–521.
- Darveaux, D. X. (1984). The Good Behavior Game plus merit: Controlling disruptive behavior and improving student motivation. *School Psychology Review, 13*, 510–514.
- Delquadri, J. C., Greenwood, C. R., Whorton, D., Carta, J. J., & Hall, R. V. (1986). Classwide peer tutoring. *Exceptional Children, 52*, 535–542.
- Deno, S. L. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children, 52*, 219–232.
- Dishion, T. J., Patterson, G. R., Stoolmiller, M., & Skinner, M. L. (1991). Family, school, and behavioral antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology, 27*, 172–180.
- Dolan, L. J., Kellam, S. G., Brown, C. H., Werthamer-Larsson, L., Rebok, G. W., Mayer, L. S., et al. (1993). The short-term impact of two classroom-based preventive interventions on aggressive and shy behaviors and poor achievement. *Journal of Applied Developmental Psychology, 14*, 317–345.
- Duncan, B. B., Forness, S. R., & Hartsough, C. (1995). Students identified as seriously emotionally disturbed in day treatment: Cognitive, psychiatric, and special education characteristics. *Behavioral Disorders, 20*, 238–252.
- Dunlap, G., & Childs, K. E. (1996). Intervention research in EBD: An analysis of studies from 1980–1993. *Behavioral Disorders, 21*, 125–136.
- Fantuzzo, J. W., King, J. A., & Heller, L. R. (1992). Effects of reciprocal peer tutoring on mathematics and school adjustment: A component analysis. *Journal of Educational Psychology, 84*, 331–339.
- Forness, S. R., Kavale, K., Blum, S., & Lloyd, J. W. (1997). Mega-analysis of meta-analyses: What works in special education and related services. *Teaching Exceptional Children, 29*(6), 4–9.
- Frank, A. R., Sitlington, P. L., & Carson, R. R. (1995). Young adults with behavioral disorders: A comparison with peers with mild disabilities. *Journal of Emotional and Behavioral Disorders, 3*, 156–164.
- Gansle, K. A., & McMahon, C. M. (1997). Component integrity of teacher intervention management behavior using a student self-monitoring treatment: An experimental analysis. *Journal of Behavioral Education, 7*, 405–419.
- Greenwood, C. R. (1991). Longitudinal analysis of time, engagement, and achievement in at-risk versus non-risk students. *Exceptional Children, 57*, 521–535.
- Greenwood, C. R., Delquadri, J. C., & Hall, R. V. (1984). Opportunity to respond and student academic performance. In W. L. Heward, T. E. Heron, D. S. Hill, & J. Trap-Porter (Eds.), *Focus on behavior analysis in education* (pp. 58–88). Columbus, OH: Merrill.
- Greenwood, C. R., Terry, B., Arreaga-Mayer, C., & Finney, R. (1992). The classwide peer tutoring program: Implementation factors moderating students' achievement. *Journal of Applied Behavior Analysis, 25*, 101–116.
- Gresham, F. M. (1989). Assessment of treatment integrity in school consultation and prereferral intervention. *School Psychology Review, 18*, 37–50.
- Gresham, F. M. (2002). Teaching social skills to high-risk children and youth: Preventive and remedial strategies. In M. R. Shinn, H. M. Walker, & G. Stoner (Eds.), *Interventions for academic and behavior problems II: Preventive and remedial approaches* (pp. 403–432). Bethesda, MD: National Association of School Psychologists.
- Gresham, F. M., Gansle, K. A., Noell, G. H., Cohen, S., & Rosenblum, S. (1993). Treatment integrity of school-based intervention studies: 1980–1990. *School Psychology Review, 22*, 254–272.
- Harris, V. W., & Sherman, J. A. (1973). Use and analysis of the “Good Behavior Game” to reduce disruptive classroom behavior. *Journal of Applied Behavior Analysis, 6*, 405–417.
- Kauffman, J. M. (1996). Research to practice issues. *Behavioral Disorders, 22*, 55–60.
- Kauffman, J. M. (1999). How we prevent the prevention of emotional and behavioral disorders. *Exceptional Children, 65*, 448–468.
- Kauffman, J. M. (2001). *Characteristics of emotional and behavioral disorders of children and youth* (7th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Kauffman, J. M. (2002). *Education deform: Bright people sometimes say stupid things about education*. Lanham, MD: Scarecrow Education.
- Kauffman, J. M., Bantz, J., & McCullough, J. (2002). Separate and better: A special public school class for students with emotional and behavioral disorders. *Exceptionality, 10*, 149–170.
- Kauffman, J. M., Lloyd, J. W., Cook, L., Cullinan, D., Epstein, M. H., Forness, S. R., et al. (1991). Problems and promises in special education and related services for children and youth with emotional or behavioral disorders. *Behavioral Disorders, 16*, 299–313.
- Kauffman, J. M., Mostert, M. P., Trent, S. C., & Hallahan, D. P. (2002). *Managing classroom behavior: A reflective case-based approach* (3rd ed.). Boston: Allyn & Bacon.
- Kauffman, J. M., & Wong, K. L. H. (1991). Effective teachers of students



- with behavioral disorders: Are generic teaching skills enough? *Behavioral Disorders*, 16, 225–237.
- Kazdin, A. E. (1982). *Single-case research designs: Methods for clinical and applied settings*. New York: Oxford University Press.
- Kohn, A. (1993). *Punished by rewards*. New York: Houghton Mifflin.
- Koyangi, C., & Gaines, S. (1993). *All systems failure: An examination of the results of neglecting the needs of children with serious emotional disturbance*. Washington, DC: National Mental Health Association.
- Kupersmidt, J. B., & Coie, J. D. (1990). Preadolescent peer status, aggression, and school adjustment as predictors of externalizing problems in adolescence. *Child Development*, 61, 1350–1362.
- Landrum, T. J., & Tankersley, M. (1999). Emotional and behavioral disorders in the new millennium: The future is now. *Behavioral Disorders*, 24, 319–330.
- Lipsey, M. W., & Derzon, J. H. (1998). Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 86–105). Thousand Oaks, CA: Sage.
- Lloyd, J. W., Bateman, D. F., Landrum, T. J., & Hallahan, D. P. (1989). Self-recording of attention versus productivity. *Journal of Applied Behavior Analysis*, 22, 315–323.
- Lloyd, J. W., Forness, S. R., & Kavale, K. A. (1998). Some methods are more effective than others. *Intervention in School and Clinic*, 33, 195–200.
- Lloyd, J. W., Hallahan, D. P., Kauffman, J. M., & Keller, C. E. (1998). Academic problems. In T. R. Kratochwill & R. J. Morris (Eds.), *The practice of child therapy* (3rd ed., pp. 167–198). Boston: Allyn & Bacon.
- Lloyd, J. W., Landrum, T. J., & Hallahan, D. P. (1991). Self-monitoring applications for classroom interventions. In G. Stoner, M. R. Shinn, & H. M. Walker (Eds.), *Interventions for achievement and behavior problems in regular class settings* (pp. 201–213). Stratford, CT: National Association of School Psychologists.
- Maag, J. W. (2001). Rewarded by punishment: Reflections on the disuse of positive reinforcement in schools. *Exceptional Children*, 67, 173–186.
- Mace, F. C., Hock, M. L., Lalli, J. S., West, B. J., Belfiore, P., Pinter, E., & Brown, D. F. (1988). Behavioral momentum in the treatment of non-compliance. *Journal of Applied Behavior Analysis*, 21, 123–141.
- Malouf, D. B., & Schiller, E. P. (1995). Practice and research in special education. *Exceptional Children*, 61, 414–424.
- Marder, C. (1992). Education after secondary school. In M. Wagner, R. D'Amico, C. Marder, L. Newman, & J. Blackorby (Eds.), *What happens next? Trends in postschool outcomes of youth with disabilities*. The second comprehensive report from the National Longitudinal Transition Study of Special Education Students (pp. 3-1–3-39). Menlo Park, CA: SRI International.
- McConaughy, S. H., Stranger, C., & Achenbach, T. M. (1992). Three-year course of behavioral/emotional problems in a national sample of 4- to 16-year-olds: I. Agreement among informants. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 932–940.
- Meadows, N. B., Neel, R. S., Scott, C. M., & Parker, G. (1994). Academic performance, social competence, and mainstream accommodations: A look at mainstreamed and nonmainstreamed students with serious behavioral disorders. *Behavioral Disorders*, 19, 170–180.
- Moncher, F. J., & Prinz, R. J. (1991). Treatment fidelity in outcome studies. *Clinical Psychology Review*, 11, 247–266.
- Montgomery, R. W., & Ayllon, T. (1993). The effects of “do,” “don’t,” and “wait” requests training on compliance behavior and stimulus generalizations. *Journal of Behavior Therapy and Experimental Psychiatry*, 24, 171–180.
- Munk, D. D., & Repp, A. C. (1994). The relationship between instructional variables and problem behavior: A review. *Exceptional Children*, 60, 390–401.
- Neville, M. H., & Jenson, W. R. (1984). Precision command and the “sure I will” program: A quick and efficient compliance training sequence. *Child and Family Behavior Therapy*, 6, 61–65.
- Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys*. Vol. 4. *A social international approach*. Eugene, OR: Castalia.
- Pigott, H. E., Fantuzzo, J. W., & Clement, P. W. (1986). The effects of reciprocal peer tutoring and group contingencies on the academic performance of elementary school children. *Journal of Applied Behavior Analysis*, 19, 93–98.
- Proctor, M. A., & Morgan, D. (1991). Effectiveness of a response cost raffle procedure on the disruptive classroom behavior of adolescents with behavior problems. *School Psychology Review*, 20, 97–109.
- Repp, A., & Singh, N. (1990). *Perspectives on the use of nonaversive and aversive interventions for persons with developmental disabilities*. Sycamore, IL: Sycamore.
- Rhode, G., Jensen, W. R., & Reavis, H. K. (1993). *The tough kid book: Practical classroom management strategies*. Longmont, CO: Sopris West.
- Rogers-Adkinson, D., & Griffith, P. (Eds.). (1999). *Communication disorders and children with psychiatric and behavioral disorders*. San Diego, CA: Singular.
- Salend, S. J., & Gordon, B. D. (1987). A group-oriented timeout ribbon procedure. *Behavioral Disorders*, 12, 131–137.
- Shinn, M. R., Walker, H. M., & Stoner, G. (Eds.). (2002). *Interventions for academic and behavior problems II: Preventive and remedial approaches*. Bethesda, MD: National Association of School Psychologists.
- 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 Behavioral Disorders*, 1, 27–39.
- Singer, G. H., Singer, J., & Horner, R. H. (1987). Using pretask requests to increase the probability of compliance for students with severe disabilities. *Journal of the Association for Persons with Severe Handicaps*, 12, 287–291.
- Strain, P. S., Lambert, D. L., Kerr, M. M., Stagg, V., & Lenkner, D. A. (1983). Naturalistic assessment of children’s compliance to teachers’ requests and consequences for compliance. *Journal of Applied Behavior Analysis*, 16, 243–249.
- Sutherland, K. S., Copeland, S., & Wehby, J. H. (2001). Catch them while you can: Monitoring and increasing the use of effective praise. *Beyond Behavior*, 11, 46–49.
- Tankersley, M. (1995). A group-oriented contingency management program: A review of the research on the Good Behavior Game and implications for teachers. *Preventing School Failure*, 40, 19–24.
- Telzrow, C. F., & Beebe, J. J. (2002). Best practices in facilitating intervention adherence and integrity. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (Vol. 2, pp. 503–516). Bethesda, MD: National Association of School Psychologists.
- U.S. Department of Health and Human Services. (2001). *Report of the Surgeon General’s Conference on Children’s Mental Health: A National Action Agenda*. Washington, DC: Author.
- Walker, H. M. (1995). *The acting-out child: Coping with classroom disruption* (2nd ed.). Longmont, CO: Sopris West.
- Walker, H. M., Colvin, G., & Ramsey, E. (1995). *Antisocial behavior in school: Strategies and best practices*. Pacific Grove, CA: Brooks/Cole.
- Walker, H. M., Forness, S. R., Kauffman, J. M., Epstein, M. H., Gresham, F. M., Nelson, C. M., & Strain, P. S. (1998). Macro-social validation: Referencing outcomes in behavioral disorders to societal issues and problems. *Behavioral Disorders*, 24, 7–18.
- Walker, H. M., Hops, H., & Greenwood, C. R. (1993). *RECESS: A program for reducing negative-aggressive behavior*. Seattle, WA: Educational Achievement Systems.
- 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, 194–209.
- Walker, H. M., Kavanagh, K., Stiller, B., Golly, A., Severson, H. H., & Feil, E. G. (1998). First Step to Success: An early intervention approach for preventing school antisocial behavior. *Journal of Emotional and Behavioral Disorders*, 6, 66–80.
- Walker, H. M., Schwarz, I. E., Nippold, M., Irvin, L. K., & Noell, J. (1994). Social skills in school-age children and youth: Issues and best practices in assessment and intervention. *Topics in Language Disorders: Prag-*



- matics and Social Skills in School Age Children and Adolescents*, 14(3), 70–82.
- Walker, H. M., Shinn, M. R., O'Neill, R. E., & Ramsey, E. (1987). A longitudinal assessment of the development of antisocial behavior in boys: Rationale, methodology and first year results. *Remedial and Special Education*, 8(4), 7–16, 27.
- Walker, H. M., & Walker, J. E. (1991). *Coping with noncompliance in the classroom: A positive approach for teachers*. Austin: PRO-ED.
- Ward, P. C. (1995). A response to "The negative effects of positive reinforcement in teaching children with developmental delays." *Exceptional Children*, 61, 489–492.
- Wehby, J. H., Symons, F. J., Canale, J. A., & Go, F. J. (1998). Teaching practices in classrooms for students with emotional and behavioral disorders: *Discrepancies between recommendations and observations*. *Behavioral Disorders*, 24, 51–56.
- Witt, J. C., & Elliott, S. N. (1982). The response cost lottery: A time efficient and effective classroom intervention. *Journal of School Psychology*, 20, 155–161.
- Wolf, M. M., Braukmann, C. J., & Ramp, K. A. (1987). Serious delinquent behavior as part of a significantly handicapping condition: Cures and supportive environments. *Journal of Applied Behavior Analysis*, 20, 347–359.

---

## Notices

### Confront Teasing as School Year Starts

The teasing that hurts all children is doubly hurtful to those who stutter. Teachers can help by following expert advice in a new brochure published by The Stuttering Foundation to address both teasing and stuttering at the beginning of the school year. In addition to tips on handling teasing, the brochure provides guidance on how to deal with reading aloud, calling on the child, and other questions teachers routinely have when a child stutters in their classroom. Parents of children who stutter often give a copy of *The Child Who Stutters: Notes to the Teacher* to their child's instructor during the first week of class. The brochure is also available in Spanish.

To obtain a free copy of *The Child Who Stutters: Notes to the Teacher* or *El Niño Que Tartamudea en la Escuela*, the Spanish version, contact The Stuttering Foundation, 3100 Walnut Grove Rd., Suite 603, Memphis, TN 38111; call 800/992-9392; or download the brochures directly from our Web sites ([www.stutteringhelp.org](http://www.stutteringhelp.org); [www.tartamudez.org](http://www.tartamudez.org)). The 56-year-old nonprofit foundation also offers 27 books and 24 videotapes on stuttering, including the new video *Stuttering: Straight Talk for Teachers*.

### First Online University for Literacy Launched

Verizon Literacy University (VLU), the first online university dedicated to literacy, is now available for literacy organizations, corporations whose employees volunteer, and families with loved ones who have low literacy skills. Currently, more than 92 million Americans have low literacy skills.

VLU offers a variety of courses that vary in length depending on the subject matter, but most courses can be completed in less than 30 minutes. VLU students are not expected to have a background in a literacy-related field. In fact, one of the primary purposes of VLU is to motivate those who are considering volunteering in literacy programs.

VLU was conceived and funded by Verizon Communications in partnership with ProLiteracy Worldwide and the National Center for Family Literacy. For additional information about Verizon Literacy University, visit the Web site ([www.vluonline.org](http://www.vluonline.org)).