2001

Maintaining the Integrity of FBA-Based Interventions in Schools

Robert A. Gable
Old Dominion University, rgable@odu.edu

Jo M. Hendrickson

Richard Van Acker

Maintaining the Integrity of FBA-based Interventions in Schools

Robert A. Gable
Old Dominion University

Jo M. Hendrickson
University of Iowa

Richard Van Acker
University of Illinois at Chicago

Abstract

The best interventions and best laid plans are brought into jeopardy when they are implemented inappropriately or of insufficient duration. Six factors that affect fidelity of treatment in relationship to functional behavioral assessment (FBA) are discussed: a) understanding the function of and the contextual valuables that support target behavior, b) adult knowledge of effective interventions, c) adult acceptance of the intervention, d) selection of suitable replacement behavior, e) selection of the standard to judge behavior change, and f) utilization of procedures to enhance integrity of implementation. Examples and suggestions for improving treatment fidelity in schools are offered.

★ ★ ★

Schools have long viewed discipline and instruction as two separate and distinct issues. Traditionally, classroom teachers and administrators have responded to student discipline problems by imposing negative sanctions (e.g., time out, office referrals, in-school or out-of school suspensions) (Colvin, Kameenui, & Sugai, 1993; Gable & Van Acker, 1999). When a learning problem exists, teachers usually respond more positively – by attempting to re-teach the content, to modify the assignment, and so on (Nelson, 2000). With the 1997 Individuals with Disabilities Education Act (IDEA), education personnel now are required not only to acknowledge the relationship between learning and behavior, but to act upon it as well (Yell & Shiner, 1997). The language of the IDEA is clear. The IEP team

Please address correspondence to: Jo Hendrickson, N264 Lindquist Center, Iowa City, IA 52242.

must explore the need for strategies and supports to address any behavior that may impede the learning of the child with a disability or the learning of his/her peers. And, school personnel must work cooperatively to develop, implement, and evaluate a plan to address behavior that impedes the teaching/learning process.

The language of the 1997 IDEA signals a fundamental shift in ownership of student behavior problems. Ownership of the problem or "impeding" behavior no longer rests solely with the student. Now, it is a shared responsibility among those working with the student. Moreover, the so-called problem behavior is no longer viewed as residing within the student, but as a response to environmental conditions. Largely because of the recency of this mandate, few education personnel have been adequately prepared to respond effectively to overlapping problems in student learning and behavior (e.g., Conroy, Clark, Gable, & Fox, 1999).

There is a growing recognition that a major reason for negative student behavior is academic failure (Nelson, Scott, & Polsgrove, 1999). Increasing evidence demonstrates that students often "act-up" in class to escape ineffective instruction (Gunter, Denny, Jack, Shores, & Nelson, 1993), and classroom behavior and learning problems increase the likelihood of peer rejection and accelerate the rate of anti-social behavior (Gunter et al., 1993; Walker, Colvin, & Ramsey, 1995). Federal legislation, supported by experimental research, directs schools to respond proactively and positively to both academic and behavior problems (Bullock & Gable, 2000). For schools to be successful, the longstanding division between teacher responses to academic and behavior problems must be closed so that both are seen as *problems of learning*.

The challenge to increase the capacity of school personnel to address students' academic and behavior problems is immense. No less daunting is the challenge of ensuring the faithful implementation of intervention plans. The so-called "fidelity" with which an intervention is applied, is of particular concern. How can effectiveness of an intervention be judged if it is not implemented correctly? Without faithful delivery of planned interventions, their value and effectiveness simply cannot be determined. Moreover, if IEP team members (or others) fail to fully and consistently implement an intervention, the target behavior will persist and likely become more resistant to extinction. In all, fidelity of treatment is critical to successful behavior change. There are several factors closely associated with fidelity of treatment, and they are the focus of this paper: (a) understanding the function of and contextual variables that support target behavior; (b) adult knowledge of effective interventions; (c) adult acceptance of the intervention; (d) selection of suitable replacement behavior; (e) selection of the standard to judge changes in behavior; and finally, (f) utilization of procedures to enhance the integrity of implementation. In the following discussion, we begin with a brief overview of FBA, examine

critically each of these issues, and offer some suggestions for maintaining the fidelity of school-based intervention plans.

Functional Behavioral Assessment (FBA) in Schools

According to federal legislation, when the misconduct of a student with a disability warrants disciplinary action leading to suspension or expulsion, the IEP team must conduct a formal assessment of the problem situation (Yell & Shiner, 1997). Through a series of activities, the team must determine the function(s) of the impeding behavior for the student and design an intervention that takes the function(s) of the behavior into account. Teaching alternative, replacement behavior(s) is equally as important as decreasing the frequency and/or intensity of the impeding behavior. This two-fold process is guided by what has long been referred to as the "fair-pair" rule (White & Haring, 1976). The fair-pair rule stipulates that rather than simply trying to extinguish the problem behavior, practitioners must give equal attention to promoting a replacement behavior that satisfies the same need (function), but which is more acceptable or appropriate. Ideally, the replacement behavior selected is more efficacious for the student than the original problem behavior (Gable et al., 2000). By addressing the issue of response efficiency, the team further insures the likelihood of the replacement behavior becoming embedded in the student's behavioral repertoire. To achieve exclusive use of appropriate replacement behaviors generally requires that pupil-specific academic and non- academic factors be addressed.

Understanding the Function of and the Contextual Variables That Support Impeding Behavior

The main reason to conduct a functional behavioral assessment (FBA) is to isolate functional relationships between significant aspects of the social, academic, and/or physical environment and the occurrence (or non-occurrence) of student behavior (Dunlap et al., 1993). With this knowledge, we can predict future events based on knowledge of present events, a concept known as conditional probability (Gresham, 1991). After conducting a FBA and analyzing the data collected, it is the IEP team's responsibility to identify intervention options that are consonant with the motivation behind the impeding behavior (Gable et al., 2000). For instance, a student who is motivated to escape from an aversive academic task might engage in disruptive behavior to be sent to the office. Recognizing the student's need to escape instruction, the IEP team would plan for the teacher to model and role play appropriate behaviors (e.g., request to begin a different activity or take a break) to accomplish the same outcome. The success of treatment hinges on the goodness-of-fit between the func-

tion of the behavior and the appropriateness of the intervention selected.

Aside from motivational match, another significant factor to consider is the relationship of the proposed intervention to current classroom practices, that is, "contextual fit." Contextual fit refers to the congruence between the intervention and relevant, setting-specific variables (e.g., class size, teacher attitude and instructional skills, student characteristics) (Gunter & Denny, 1996). The use of an intervention that is consistent with existing classroom practices and which is applicable to multiple students, increases the overall contextual fit of the intervention.

For example, Steven might engage in frequent talk-outs during class. Talk-outs are most likely to occur during those times when Steven must compete with others for an opportunity to respond or when he is part of a larger group of students asked to work independently as the teacher instructs a different group of students (setting event). After observing the teacher's reaction to Steven's disruptive talk-outs, we discover that the teacher generally responds in one of three ways: a verbal reprimand, planned ignoring, or a positive response (e.g., praise or attention to Steven for answering a question correctly).

From the observational data collected, we determine that Steven is gaining attention and control through his talk-outs on an average of once every 5 minutes. He manages to obtain attention from the teacher (either a reprimand or positive attention) on 2 out of 3 talk-outs (1 of 3 is ignored). The fact that he gains a positive teacher response for almost one-third of the talk-outs suggests that talking out is being strengthened (through intermittent reinforcement) rather than eliminated by the current intervention.

Any effort to effectively intervene on Steven's talk-outs will have to account for his legitimate need for attention and control. Steven's need is rather strong, and he will have to learn and practice appropriate strategies to obtain attention and control at roughly the same rate (once every 5 minutes). The social context of the classroom will need to accommodate and reinforce Steven's new behavior. In addition, the teacher will need to plan for increased opportunities for Steven to display his new behavior and to respond positively to his appropriate efforts. Finally, the intervention plan will require a *consistent* response that minimizes attention and control gained with talk-outs.

Adult Knowledge of Effective Interventions

To successfully resolve academic and behavior problems, school personnel must be able to develop quality intervention plans and ensure that those plans are followed over time. A quality plan relies on understanding of the multiple variables that impact learning. For example, we know that the majority of behavior problems stem from academic failure, yet

many educators are unprepared to circumvent academic failure. Limitations are common in educator knowledge of (a) specific curricular and instructional accommodations (Baker & Zigmond, 1991; Brown, Gable, Hendrickson, & Algozzine, 1991; Wilson, Gutkin, Hagen, & Oats, 1998), (b) effective behavioral interventions (Elliott, 1988; Gunter & Denny, 1996), and (c) how to match an individual student's needs with intervention strategies. Moreover, notwithstanding the popularity of professional collaboration, teachers often lack experience in team problem-solving and decision-making, especially with serious academic and behavioral problems (Hendrickson, et al., 1999; Wilson et al., 1998).

Resolution of problems surrounding flawed classroom practice must begin at the pre-service level of teacher preparation. Absent quality pre-service preparation in the necessary competencies, local school districts will need to offer in-service training that compensates for under-prepared novice teachers. Federal legislation stipulates that school districts meet the professional development needs of paraeducators, general educators, special educators, and support personnel. They can effectively do this by incorporating functional behavioral assessment (FBA) and positive behavioral support planning into their in-service instruction programs. Whether at pre-service or in-service level, both didactic instruction and hands-on experiences, coupled with routine technical assistance and support, seems essential to promote competency in the FBA process (Conroy et al., 2000; Chandler, Dehlquist, Repp, & Feltz, 1999; Gable et al., 1999; Stichter, Shellady, Sealander, & Eigenburger, 2000).

Adult Acceptance of the Intervention

A critical piece of the FBA intervention process is termed "treatment acceptability" (Elliott, 1988; Polloway, Bursuck, Epstein, & Nelson, 1996). That which constitutes acceptable treatment is based on the judgment of persons responsible for implementation of the plan (Gunter & Denny, 1996). Decision-making regarding treatment acceptability rests on factors such as the complexity of the intervention, its perceived effectiveness, and teacher knowledge of its implementation (Gresham, MacMillan, Beebe-Frankenberger, & Bocian, 2000; Gunter & Denny, 1996; Wilson et al., 1998; Quinn, 2000). These factors in turn relate to teacher time and teacher perceptions regarding the demands associated with planning and implementing the intervention (Gunter & Denny, 1996).

If, after considering these issues, teachers do not view an intervention as attractive, it is unlikely that it will be implemented. The more acceptable the intervention, the greater the probability that it will be implemented in a manner likely to result in changing student behavior. Not surprisingly, intervention complexity and integrity are closely related – the more complex or demanding the intervention, the more susceptible it is to early

defection – that is, the increased likelihood that persons responsible for its implementation will stray from or totally abandon the IEP team's plan. It follows that a balance must be struck among sometimes competing forces, and the intervention selected should be one with a high probability of being used and a high probability of producing positive changes. Fortunately, IEP teams have numerous options available in most situations requiring FBA and positive behavioral supports. The majority of behavior problems can be addressed in more than one way, and most problem behaviors can be replaced by more than one alternative behavior.

In our example, a behavioral intervention plan for Steven (who was displaying a high rate of disruptive talk-outs) might involve efforts to change the social context that occasions the behavior (setting events and antecedents). For example, the teacher could call upon and interact with Steven more frequently (increased attention), especially when Steven is participating appropriately. The teacher also could employ choral responding to increase Steven's active participation. The lessons can be designed to allow all students more choice (e.g., answer three of the five essay questions provided), and thereby enable greater student control. The intervention could involve efforts to teach (vis-a-vis direct instruction) Steven alternative and more appropriate ways to seek attention and/or to exert his need for control (e.g., assertiveness skills). The intervention also could target the consequences provided for behavior. The teacher might employ some type of Differential Reinforcement of Low Rate Behavior (DRL) (Repp & Dietz, 1974). This would provide the student with direct reinforcement for those occasions in which he displays lower and lower rates of talk-out behavior. At the same time, the teacher would provide increased attention and control when the student displays the more desirable alternative behavior (Differential Reinforcement of Alternate Behavior [DRA]). In many cases, the IEP team can adopt a behavioral intervention plan that includes more than one strategy providing all strategies are effective (empirically validated) and acceptable to those who must implement the plan.

Fidelity of implementation. Closely related to acceptance of an intervention is intervention fidelity. The concept of intervention or treatment fidelity (sometimes called "treatment integrity" or "procedural reliability") refers to the accuracy and consistency with which an intervention is applied (Gable, Quinn, Rutherford, Howell, & Hoffman, 2000; Gresham, 1991). As Gresham and his colleagues (2000) assert, the degree of treatment fidelity can be directly linked to the outcome of the intervention; the greater accuracy and consistency of implementation, the greater the chance of producing positive changes in the student's behavior. Equally important is the fact that without a clear understanding of how the intervention was applied, it is difficult for the teacher or IEP team to make valid educational decisions. For example, without treatment integrity, one cannot distinguish between an ineffective treatment and a potentially effective plan

that was poorly implemented (Gable et al., 2000; Gresham et al., 2000).

Classroom and school settings are complex environments that inadvertently occasion and support many undesirable behaviors (Grant & Van Acker, 2000). In spite of the desire to engage in effective practices, teachers and other school personnel may not consistently apply the procedures spelled out in the behavioral intervention plan. Often, it is the teacher's behavior that must change first if we are to change student behavior. If we examine the disruptive talk-outs of Steven, we find that most talk-outs result in the attention he seeks. Almost one-third result in consequences desired by the teacher. Why would Steven (or any other student) refrain from such successful behavior? Obviously, the teacher must learn to respond in a manner that does not inadvertently reinforce the student. The teacher must also manage the responses of other students. To accomplish this is likely to require some form of support for the teacher since his or her behavior will need to change. Under the provisions of IDEA, such teacher supports can be delineated in the student's IEP.

Given the growing pressure on school personnel to produce positive academic outcomes, some teachers seek the simplest path to discharge their responsibilities. Fortunately, exact execution of an intervention plan (high fidelity) may not always be necessary to bring about positive outcomes. Unfortunately, it is hard to predict the amount of variance that will still produce the desired outcomes in student performance.

Selection of Suitable Replacement Behavior

In attempting to extinguish a challenging behavior, school personnel must place emphasis on building new skills in the student's repertoire (Hendrickson, et al., 1999). This skill building effort should focus on academic and non-academic behavior that will eliminate the student's need to engage in the negative behavior. For instance, some students respond more appropriately when given a less complex assignment or more preferred activities; others may require instruction on learning strategies (e.g., note-taking, memory strategies); still other students need instruction for gaining teacher assistance (e.g., Gunter et al., 1993; Shores, Gunter, & Jack, 1993).

In selecting a replacement behavior, school personnel should choose a behavior that is in relatively high demand in the natural environment. By choosing a replacement behavior frequently used by other students successfully, the likelihood increases that engaging in the behavior will gain immediate positive reinforcement (Gable & Hendrickson, 2000). Informal observations of the student and peers in multiple contexts (e.g., classroom, lunch room, hallway) may facilitate the selection of potential replacement behaviors. It also is useful to choose a replacement behavior that is already in the student's repertoire (albeit at low levels) and that is

consistent with the overall behavioral expectations of a particular social context.

When selecting replacement behaviors, teachers should remain vigilant for situations where a behavior problem (e.g., acting up in class) actually serves to mask an academic problem, student perception of incompetence, or another behavioral skill deficit. In such instances, skill training in the problem area (e.g., test-taking skills, negotiation skills) may be the first step. For example, Carl and his classmates have been asked to complete a math worksheet. Carl has never been particularly good at math and knows he will fail before he ever looks at the paper. Carl turns to the teacher and says, "Math sucks and I'm not going to do this!" Not surprisingly, the teacher is incensed – students do not talk back in her class nor do they use this type of language. She instructs Carl in a loud voice, "Go to the office! Now!" Carl quickly complies.

Carl's behavior could easily be seen as disruptive and insubordinate behavior that clearly warranted disciplinary action. The intervention selected, however, probably did not come as a surprise to Carl as it allowed him to escape the math assignment (at least temporarily). In effect, the teacher has negatively reinforced Carl's inappropriate behavior (removed an aversive - math). Thus, she should anticipate an increase in this type of behavior in the future.

Perhaps Carl's teacher might identify an alternative means to escape an assignment he feels is too difficult. For example, the teacher could provide him a desk or table in the back of the room. If Carl feels overwhelmed he can move to that table where he can find different instructional materials and activities (at a level that will produce success) until the teacher can arrange to provide the assistance he needs to complete the assigned task. At the same time, the teacher will need to provide Carl with instructionally appropriate assignments and promote the necessary knowledge and skill acquisition. This will help to prevent the problem behavior from reoccurring, as success begets success.

Selecting a Standard to Judge Changes in Behavior

Another aspect of treatment and treatment integrity relates to the selection of a criterion (or behavioral standard) against which to judge the success of an intervention. The replacement behavior must reach (a) a level of *social validity* that fits the expectations of parents, peers, and others (i.e., changes in behavior are sufficient) and (b) a level of *functional validity* that satisfies the student's need (i.e., fulfills the same need or achieves the same outcome as the unacceptable behavior).

Behavior change standards can affect the success of an intervention. The more stringent the standard, the more difficult it may be or longer it may take to achieve the desired outcome. A standard that is too lax may

not lead to a meaningful change in the student's behavior. In some cases, the nature or severity of the behavior may dictate an absolute standard (e.g., no physical aggression is acceptable). However, not all behavior requires an absolute standard. In these instances, local standards can be developed on the basis of the performance of competent students (e.g., percent of time on-task, number of positive responses made by competent peers).

A useful strategy for reaching an absolute standard is to define success according to "successive approximations" that ultimately reach the final milestone (i.e., absolute standard). This strategy allows the IEP team to promote incremental changes in student behavior that are realistic yet take into account standards from school policy and school disciplinary handbooks. For example, Steven, who is displaying disruptive talk-outs approximately once every five minutes, is not likely to refrain from talking out immediately following the implementation of a plan. More likely, the plan will have to systematically reduce Steven's number of talk-outs. This could be accomplished by reinforcing lower and lower rates of the talk-outs over time – that is, by using differential reinforcement of low rate behaviors (DRL) (Repp & Dietz, 1974).

Utilization of Procedures to Enhance Integrity of Implementation

The IEP team can assess the integrity of implementation of an FBA-based intervention in various ways. Most school personnel recognize that a clear picture of the target behavior must be captured in observable, measurable, and repeatable terms and that the definition of the behavior yields reliable data (i.e., two observers agree on the occurrence/non-occurrence of the behavior). It is equally important that there is clear specification of each component of the intervention plan, according to the temporal and sequential distribution of events. These events usually are the setting events (*SE*), antecedent events (*AE*), and consequent events (*CE*) that surround the target behavior. For any intervention to succeed, the team must precisely delineate who is responsible for each part of the plan as well as when and under what conditions the strategy should be applied. Successful teams often script out each component of the plan and then rehearse their respective roles to increase the probability of accurate and consistent implementation. When using scripted plans, clear examples of what does and what does not constitute the target behavior are mandatory. In addition, it may be useful to identify close-in non-examples (e.g., what will happen when disruptive behavior is an attempt at humor) and far-out examples (e.g., what will happen when a clumsy social initiation evokes a negative peer response) to increase the accuracy with which the plan is implemented.

Monitoring implementation. Increasingly, school personnel recognize the

importance of documenting the outcome of an intervention; however, the significance of monitoring the process of implementation has been less apparent. Only by monitoring implementation of interventions across time are teams able to make adjustments in the intervention and ultimately to assess the effectiveness of the plan. The use of *indirect* measures such as checklists and Likert scales or the use of *direct* observation, or both, allow IEP teams to monitor integrity of implementation. For example, a script that spells out the geography teacher's responsibility to: (a) change the physical arrangement of the classroom and adjust the difficulty level of the academic tasks (both setting events), (b) use a specific teaching strategy (an antecedent event), and (c) verbally praise both correct academic and social responses (a consequent event) can include a place for the teacher to self-assess his/her daily compliance with the plan (e.g., five-point scale ranging from low integrity to high integrity) (Gresham et al., 2000). In contrast, in a cooperative teaching situation, the general education teacher might observe and record teacher-pupil interactions on a modified ABC chart (Gable et al., 2000) that includes: the targeted *and* replacement behaviors; a list of setting event manipulations; and teacher behaviors in columns for antecedent and consequence event strategies.

A number of schools have implemented technical assistance and support programs which include monitoring of teacher behavior in a non-evaluative way to help insure consistent implementation of behavioral intervention plans. The non- evaluative nature of these procedures is absolutely essential for teacher acceptability (Grant & Van Acker, 2000); that is, the information is neither collected by nor shared with persons responsible for evaluating teacher performance. For example, some schools have asked teachers to identify peer monitors. These peer monitors (fellow teachers) spend approximately 20 minutes each week (part of a planning period) observing in each others' classroom. The teacher may direct the focus of their colleagues' observations (e.g., "Give me some feedback on my interaction with Carl."). One important stipulation is that peer monitors *must* identify at least two areas in which the teacher displayed strengths before indicating areas in which the teacher could improve.

Other schools require repeated direct observation of a student as part of their pre-intervention and teacher assistance team programs. Some of these schools also have implemented "automatic triggers" that initiate a process of direct observation of a student (or teacher) in an effort to provide needed early intervention and support. For example, a school might require classroom observation of a student after the fourth discipline referral to the office; a teacher might be observed after the fifth time he/she refers a student (or students) to the office. It may be that the teacher has been assigned to a particularly difficult class or a situation in which the teacher is quick to engage in a power struggle with a particular student. Either way, support and assistance appear necessary to promote a suc-

cessful solution.

Another way to monitor the integrity of intervention implementation might involve teacher use of an audio tape recorder. The teacher sets the unit to record and places it out of the way. At the end of the period, the teacher can self-assess his or her own interaction with the student and assess the integrity of implementation of the intervention (e.g., opportunities to respond, praise for the display of alternate behavior(s), reduction in teacher reprimands).

Still other options include the use of video and computer software to assess team problem-solving and the implementation of intervention plans. While there are few set procedures, the frequency with which teams assess the fidelity of intervention is likely to depend on the magnitude of the problem, number of persons involved, and the complexity of the intervention plan.

Conclusion

Schools across the country are struggling to comply with the legislative provisions of the 1997 IDEA that relate to discipline and functional behavioral assessment (FBA). That challenge is magnified by the fact that there are no clear guidelines that assure quality implementation of the FBA process. With relatively few studies on the integrity of behavioral interventions in schools (Gresham, 1991), our knowledge is limited regarding how best to assist team members to accurately and consistently implement an intervention plan (Gresham, 1989; Gresham et al., 2000; Witt & Elliot, 1985). Drawing on the available literature, it would appear that maintaining an acceptable level of treatment integrity requires that school personnel consider the interrelated issues of adult knowledge of effective intervention, acceptance of the intervention, alignment of the intervention with student motivation, selection of suitable replacement behavior, procedures to insure treatment integrity, and a realistic standard against which to judge the success of the plan. In closing, we summarize our recommendations for implementing quality intervention plans designed to achieve positive changes in student behavior:

1. Select an intervention that is congruent with student motivation (function of behavior) and is appropriate for the context in which behavior occurs.

2. Select an intervention for which there is prior evidence of its positive effects (i.e., empirical evidence).

3. Select an intervention that has a high level of acceptance among those adults responsible for its implementation.

4. Select an intervention that is consistent with the skill level *and* commitment of those adults (and peers) responsible for its implementation.

5. Select standards of behavior change that can be mutually

determined and objectively measured by the IEP team.

The 1997 IDEA compels schools to reexamine the reciprocal relationship between discipline *and* instruction. Accordingly, school personnel must have the courage to discard lingering misconceptions regarding the origin and nature of students' learning and behavior problems (e.g., "he could do it if he tried...he knows how to behave, he just doesn't care..."). IEP teams and others must develop the skills to simultaneously address student academic and behavioral problems in a manner that increases the probability of faithful, effective implementation of quality interventions.

References

Baker, J., & Zigmond, N. (1990). Are regular classes equipped to accommodate students with learning disabilities? *Exceptional Children, 56,* 515-526.

Brown, J., Gable, R.A., Hendrickson, J.M., & Algozzine, B. (1991). Prereferral intervention practices of regular classroom teachers: Implications for regular and special education preparation. *Teacher Education and Special Education, 14,* 192-197.

Bullock, L.M., & Gable, R.A. (Eds.) (2000). *Positive academic and behavioral supports: Creating safe, effective, and nurturing environments for all students.* Reston, VA.: Council for Children with Behavioral Disorders.

Chandler, L.K., Dahlquist, C.M., Repp, A.C., & Feltz, C.(1999). The effects of team-based functional assessment on the behavior of students in classroom settings. *Exceptional Children, 66,* 101-122.

Colvin, G., Sugai, G., & Kammeeui, E. (1993). Reconceptualizing behavior management and school-wide discipline in general education. *Education and Treatment of Children, 16,* 361-381.

Conroy, M., Clark, D., Gable, R.A., & Fox, J.J. (1999). A look at IDEA 1997 discipline provisions: Implications for change in roles and responsibilities of school personnel. *Preventing School Failure, 43,* 64-70.

Dunlap, G., Kern, L., dePerezel, M., Clarke, S., Wilson, D., Childs, K.E., White, R., & Falk, G.H. (1993). Functional analysis of classroom variables for student with emotional and behavioral disorders. *Behavioral Disorders, 18,* 275-291.

Elliott, S.N. (1988). Acceptability of behavioral treatments in educational settings. In J. Witt, S. Elliott, & F. Gresham (Eds.), *Handbook of behavioral therapy in education.* (pp. 121-150). New York: Plenum.

Gable, R.A., & Hendrickson, J.M. (2000). Strategies for maintaining positive behavior change stemming from functional behavioral assessment in schools. *Education and Treatment of Children, 23,* 286-297.

Gable, R.A., Quinn, M.M., Rutherford, R.B., Jr., Howell, K., & Hoffman, C. (2000). *Addressing student problem behavior Part III: Creating positive intervention plans and supports.* Washington, D.C. : Center for Effective Collaboration and Practice.

Gable, R.A., & Van Acker, R. (2000). The challenge to make schools safe: Preparing education personnel to curb student aggressions and violence. *The Teacher Educator, 35,* 1-18.

Grant, S.H., & Van Acker, R. (2000). Do schools teach aggression? Recognizing and retooling the interactions that lead students to aggression. *Reaching Today's Youth, 5*(1), 27-32.

Gresham, F. (1989). Assessment of treatment integrity in school consultation and pre-referral intervention. *School Psychology Review, 18,* 37-50.

Gresham, F. (1991). Whatever happened to functional analysis in behavioral consultation? *Journal of Educational and Psychological Consultation, 2,* 387-392.

Gresham, F., MacMillan, D.L., Beebe-Frankenberger, M.B., & Bocian, K.M. (2000). Treatment integrity in learning disabilities intervention research: Do we really know how treatments are implemented? *Learning disabilities research and practice, 15,* 198-205.

Gunter, P., & Denny, K. (1996). Research issues and needs regarding teacher use of classroom management strategies. *Behavioral Disorders, 22,* 15-20.

Gunter, P., Denny, K., Jack, S., Shores, R.E., & Nelson, C.M. (1993). Aversive stimuli in academic interactions between students with serious emotional disturbance and their teachers. *Behavioral Disorders, 18,* 265-274.

Hendrickson, J.M., Gable, R.A., Conroy, M.A., Fox, J., & Smith, C. (1999). Behavioral problems in schools: Ways to encourage functional behavioral assessment (FBA) of discipline-evoking behavior of students with emotional and/or behavioral disorders (EBD). *Education and Treatment of Children, 22,* 280-290.

Nelson, C.M. (2000). Educating students with emotional and behavioral disabilities in the 21st century: Looking through windows, opening doors. *Education and Treatment of Children, 23,* 204-222.

Nelson, C.M., Scott, T.M., & Polsgrove, L. (1999). *Perspective on emotional/behavioral disorders: Assumptions and their implications for education and treatment.* Reston, VA.: Council for Children with Behavioral Disorders.

Polloway, E.A., Bursuck, M., Epstein, M. H., & Nelson, J.S. (1996). Treatment acceptability: Determining appropriate interventions within inclusive classrooms. *Intervention in the School and Clinic, 3,* 133-144.

Quinn, M.M. (2000). Creating safe, effective, and nurturing schools: New opportunities and new challenges for serving all students. In L.M. Bullock & R.A. Gable (Eds.), *Positive academic and behavioral supports: Creating safe, effective, and nurturing schools for all students.* (pp. 1-5). Reston, VA.: Council for Children with Behavioral Disorders.

Repp, A.C., & Deitz, S.M., (1974). Reducing inappropriate behaviors. *Mental Retardation, 14*(1), 11-15.

Shores, R.E., Gunter, P., & Jack, S.L. (1993). Classroom management strategies: Are they setting events for coercion? *Behavioral Disorders, 18,* 92-102.

Stichter, J.P., Shellady, S., Sealander, K., & Eigenberger, M.E. (2000). Teaching what we do know: Preservice training and functional behavioral assessment. *Preventing School Failure, 44,* 142-146.

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

White, O., & Haring, N.G. (1976). *Exceptional teaching.* Columbus, OH.: Charles E. Merrill.

Wilson, P.C., Gutkin, T.B., Hagen, K.M., & Oates, R.G. (1998). General education teacher's knowledge and self-reported use of classroom interventions for working with difficult-to-teach students: Implications for consultation, prereferral intervention and inclusive services. *School Psychology Quarterly, 13,* 45-62.

Witt, J.C., & Elliott, S.N. (1985). Accountability of classroom management strategies. In T.R. Kratochwill (Ed.), *Advances in school psychology* (Vol. 4, pp. 251-288). Hillsdale, NJ: Lawrence Erlbaum.

Yell, M., & Shiner, J. (1997). The IDEA amendments of 1997: Implications for special education teachers, administrators, and teacher trainers. *Focus on Exceptional Children, 30,* 1-19.