

## **Modifying Instructional Activities to Promote Desirable Behavior: A Conceptual and Practical Framework**

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Recent research has placed an increased emphasis on the role of antecedent and contextual stimuli in efforts to improve student conduct. In particular, researchers and practitioners have explored the potential of modifying instructional and curricular variables as a principal component of behavior management in school settings. The purpose of this article is to summarize a framework for conceptualizing and implementing a model to improve student behavior through individualized, assessment-based modifications of curricular activities. Included is a summary of research documenting the influence of curricular variables, with a particular focus on recent research on the assessment and utilization of student preferences. A practical model of functional assessment and curricular revision is presented, with examples to illustrate the process. The article concludes with a discussion of some practical issues and limitations, and a call for further efforts to develop curricula that are truly functional and responsive to the diverse and idiosyncratic needs of students with behavioral challenges.

Since the beginnings of this decade, groups of educators, psychologists, and researchers have been analyzing a strategy of behavioral intervention that uses individualized curricular adjustments to resolve behavior problems (Dunlap & Kern, 1993). The strategy uses methods of functional assessment (Foster-Johnson & Dunlap, 1993; O'Neill, Horner, Albin, Storey, & Sprague, 1990) to identify features of the instructional/curricular environment that are associated consistently with the occurrence of behavior problems. When the offending stimulus features

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are identified, the problematic influences are removed or ameliorated by altering relevant aspects of the instructional curriculum. A number of classroom-based studies have demonstrated that this approach can be effective in reducing behavior problems and increasing task engagement and productivity (Dunlap & Kern, 1993; Munk & Repp, 1994). The approach has been shown to be valuable with a diversity of student populations (e.g., Clarke et al., 1995; Dunlap, Foster-Johnson, Clarke, Kern, & Childs, 1995; Dunlap, Kern-Dunlap, Clarke, & Robbins, 1991; Umbreit, 1995), and in both special and general education settings (e.g., Kern, Childs, Dunlap, Clarke, & Falk, 1994; Umbreit, 1995).

The strategy of individualized, curricular revision is one component of a larger enterprise, which is referred to as "positive behavioral support" (Horner et al., 1990). Positive behavioral support is a comprehensive approach for addressing significant behavioral challenges that is based on person-centered values and a broad, systematic technology of instruction, lifestyle change, and response reduction (e.g., Carr et al., 1994; Koegel, Koegel, & Dunlap, 1996; Meyer & Evans, 1989; Turnbull & Turnbull, 1990). Positive behavioral support seeks to promote skill development and enriched lifestyles as an alternative to the performance of disruptive behaviors. Multiple ingredients are typically included in behavioral support plans (Horner, O'Neill, & Flannery, 1993), with the components being identified through a prerequisite process of functional assessment (Repp & Horner, *in press*). Although there are many potential categories of intervention components, most support plans are expected to include instruction on functional skills (e.g., Carr & Durand, 1985; Durand, 1990) and an analysis and modification of antecedent (e.g., instructional, curricular) stimuli (e.g., Dunlap & Kern, 1993; Halle & Spradlin, 1993). The concepts and tactics described in this article concern the latter emphasis.

The purpose of this article is to present a strategy for assessing and modifying curricular variables in order to reduce classroom problem behaviors. The article includes a brief discussion of the conceptual basis for curricular modifications and reviews some of the relevant literature. Research that has examined the assessment and incorporation of student preferences is addressed in relative depth in order to illustrate the strategy's generality and flexibility. Following this discussion of the literature, a practical model for conducting functional assessment and curricular modifications is described along with case examples. The article concludes with a review of some common issues that are raised by school-based professionals as they consider implementing curricular modifications.

### **CONCEPTUAL FOUNDATIONS: CONTEXT, CURRICULUM, AND PROBLEM BEHAVIOR**

One of the fundamental principles that positive behavioral support has highlighted is that problem behaviors have an essential linkage to the antecedent and ecological context in which they occur. Context has a substantial role in the governance of

problem behaviors and, potentially, in their remediation. Although this perspective has been present for many years (e.g., Bijou, Peterson, & Ault, 1968; Sulzer & Mayer, 1972), it has not been employed extensively in the practice of behavior management. The role of antecedent influences has been overshadowed by the operations of consequences (rewards and punishers), even though their functions are complementary and interrelated.

The integral relationship between context and consequence is exemplified in the common scenario in which a student engages in disruptive behavior in order to solicit a teacher's attention (the reward). A crucial consideration in this equation is that the teacher's attention will only serve as a reward under conditions of relative deprivation. If the antecedent and contextual conditions provide an ample supply of relevant attention, then disruptive behavior will not occur. Moreover, disruptive behavior will be unlikely if the student has access to other kinds of rewards (e.g., peer attention, interesting materials) that are available in the classroom and that support desirable (rather than disruptive) behavior.

A common category of classroom behavior problems is explained as escape responding, meaning that the problems are controlled by the mechanisms of negative reinforcement (Iwata, 1987). Such problem behaviors may be exhibited in order to escape (or avoid) the presence of demands or particular classroom assignments that the student finds aversive. A vital element in this proposition is that, in some way, the student experiences the context of the assignment to be unpleasant enough to engage in problem behavior that carries a probability of producing escape from the assignment. It can be assumed that a different context (assignment) would not produce the same pattern of responding.

The context that affects a student in a classroom environment is composed of a tremendous variety of stimuli, including a range of external events (e.g., the behavior of peers, instructional materials, ambient lighting) as well as internal factors (e.g., levels of anxiety, fatigue). One of the most prominent sets of contextual variables in any classroom involves the instructional and curricular arrangements. These include the assignments that are provided, the materials, the content and the difficulty of the tasks, the manner with which activities are scheduled, methods of presentation, seating arrangements, feedback, the perceived relevance of the lessons, and numerous other factors. Instructional and curricular arrangements are controlled by the teacher and probably represent the most salient opportunities for antecedent control of student conduct.

The influence that curriculum can exert over student behavior has been demonstrated in a number of investigations, including a recent correlational study involving approximately 280 students with intellectual disabilities who were enrolled in special education classrooms (Ferro, Foster-Johnson, & Dunlap, 1996). The authors recorded levels of desirable behavior and problem behavior at the same time that they measured the quality of assigned curricular activities. The data revealed significant correlations between student behavior and the quality of the curricular activities.

The majority of studies relevant to antecedent control of problem behaviors have isolated specific instructional or curricular variables and demonstrated their influence with individual participants using within-subject designs. This type of research has implicated a large number of variables as potential influences, and it has suggested a like number of potential intervention tactics. For example, Weeks and Gaylord-Ross (1981) showed that task difficulty was related to problem behaviors displayed during instruction by children with severe disabilities. When the difficulty of the task was reduced, or when errorless learning was practiced, the children's rates of aggression and crying were lowered. Task difficulty has been associated with problem behaviors in several subsequent studies and with a variety of student populations (e.g., Dunlap et al., 1993).

The pacing with which tasks are presented is another instructional variable that has been related to problem behaviors (e.g., Carnine, 1976; Dunlap, Dyer, & Koegel, 1983; West & Sloan, 1986). These studies, conducted with special and general education students, have tended to indicate that relatively fast pacing is associated with fewer problems. Some other analyses have suggested that the length of task assignments and the availability of student choices can also be an important considerations (e.g., Dunlap et al., 1991; Dunlap, White, Vera, Wilson, & Panacek, in press).

The ordering with which tasks are sequenced has been related causally to problem behaviors exhibited by students with disabilities in several investigations. For example, Winterling, Dunlap and O'Neill (1987) and Dunlap (1984) provided data showing that their participants displayed less disruptive behavior when the instructional sessions included variation in the delivery of tasks and instructions. In a slightly different approach, a number of researchers (e.g., Carr, Newsom, & Binkoff, 1980; Horner, Day, Sprague, O'Brien, & Heathfield, 1991; Mace et al., 1988; Singer, Singer, & Horner, 1988) have demonstrated that instructions that are typically associated with problems can be presented without incident if they are embedded, or interspersed, within a series of benign requests. In aggregate, these studies show that the order, sequence, and temporal context in which instructions are delivered can be important considerations for some students.

It is important to recognize that the number of antecedent variables that relate curriculum and instruction to the occurrence of problem behaviors is potentially limitless. For example, there are numerous dimensions of tasks, task materials, teacher behaviors, and pertinent contextual variables that have not been isolated in a specific study but that may nevertheless affect a particular student's behavior in a significant manner. For this reason, selecting the particular variable(s) to manipulate as an intervention must be based on a preliminary process of functional assessment (e.g., Foster-Johnson & Dunlap, 1993; Repp & Horner, in press). When such assessments are performed, idiosyncratic factors are frequently identified. For example, the performance of fine motor activities was implicated as one of four curricular variables in a case study of a highly-disruptive adolescent in a classroom for students with severe emotional disturbance (Dunlap et al. 1991). Other studies of assessment-based curricular revision have identified a variety of idiosyncratic variables including

teacher proximity, an aversion to handwriting, the presence of visual distractors, proximity of peers, and the need for frequent reminders (e.g., Dunlap et al., 1993, 1996; Kern, Childs, et al., 1994). The role of assessments in delineating key dimensions and functional influences is illustrated well in the expanding research on student preference and curricular revision, as discussed in the following section.

### RESEARCH ON PREFERENCE AND CHOICE

One area of research in assessment-based, curricular revision that has been especially productive involves the identification and incorporation of student preferences. This line of research has used functional assessments to identify preferences, and then infused existing activities with the identified preferred characteristics. The general objectives of these studies have been to demonstrate meaningful reductions in disruptive behavior and increases in levels of task engagement and productivity with applicability across student populations and in the context of ongoing classroom activities. In general, the research has also sought to incorporate modifications while preserving the integrity of the pre-determined instructional objectives.

Foster-Johnson, Ferro, and Dunlap (1994) reported a study involving three students with moderate to severe intellectual disabilities, aged nine to fifteen. The two-phase study included, first, a systematic preference assessment in which alternative activities, all designed to teach a particular instructional objective, were ranked for each participant. The assessments were based on direct observations with the scoring procedure derived from a protocol for assessing reinforcers (Dyer, 1987) and scales for evaluating student affect (Dunlap, 1984; Koegel & Egel, 1979). When the activities were ranked, the alternative that was ranked highest was compared in a reversal design with the alternative that was ranked lowest. For example, in a task that required coin identification, the analysis for one participant compared an activity involving a simulated shopping activity (i.e., identifying coins to use for purchases), which had been assessed as the most preferred alternative, against a multiple-choice discrimination task, which was the least preferred option. The results for all three participants showed that problem behaviors were reduced and desirable behaviors were increased when the preferred task alternative was provided.

Clarke and her colleagues (1995) then conducted a study to determine whether similar modifications would help to reduce the occurrence of problem behaviors displayed by students with emotional and behavioral disorders. In addition to extending the findings of Foster-Johnson et al. (1994) to an additional population, these authors sought to demonstrate the phenomenon in the context of ongoing instruction, and to broaden the dependent variables beyond problem behavior and desirable behavior to include measures of productivity and social validity. Interviews were conducted with the teachers and with the students (Kern, Dunlap, Clarke, & Childs, 1994) to identify interests and preferences of the participants. After the students' interests were identified, problematic academic assignments were modified such that they incorporated preferred stimuli. For example, one student's letter tracing work-

sheets were revised so that they included his special interests (e.g., cars and motorcycles) instead of the standard animals and balloons that inspired little consideration. Another student's assignment was changed such that his handwriting was performed in the copying of instructions for (preferred) video games. Clear improvements in conduct and productivity resulted when the students' interests were incorporated into the assigned activities. In addition, a daily questionnaire confirmed the social validity of the results from the perspective of two students and their teacher.

The notion of preference can be expressed and manifested in various ways. For example, in a discussion of curriculum and problem behavior, Horner, Sprague, and Flannery (1993) noted that activities should be designed so that their performance produces an outcome that is valued by the student. In this sense, a valued outcome may be viewed as an attribute of preference. Dunlap, Foster-Johnson et al., (1995) reported a series of experimental case illustrations that demonstrated the benefits of designing tasks to produce outcomes that the participants considered to be meaningful. The participating students included children with intellectual disabilities, autism, and emotional and behavioral disorders. As in the previously-reported studies, a functional assessment was conducted and, then, problematic tasks were changed in accordance with the idiosyncratic student preferences. In one case, the problematic assignment involved a multi-step assembly task of constructing ball point pens from component parts. The instructional objective (multi-step assembly) was preserved, and the student's interests were assimilated, by changing the task to the preparation of cracker sandwiches. The sandwich assembly required several steps (as did the pen assembly), but it had a meaningful outcome (the sandwiches were consumed later in a regularly-scheduled social gathering of the class) that had been identified as valued for the student. Another example involved a student who experienced great difficulties with handwriting. When the assignment was changed from repetitive work sheets to writing captions for a personal photograph album, the student's conduct improved. In general, the results of this study supported the previous research and indicated that preference could be managed by focusing on the outcomes of a task (Dunlap et al., 1991; Horner et al., 1993).

An area of research and practice that is related to preference and that has gained considerable attention in recent years involves choice making (Bannerman, Sheldon, Sherman, & Harchik, 1990; Guess, Benson, & Siegel-Causey, 1985; Halle, 1995; Shevin & Klein, 1985). Choice making involves the provision of opportunities to students to exert some control over their instructional context. Research has examined the ability of people with disabilities to make valid choices (e.g., Belfiore, Browder, & Mace, 1994; Nozaki & Mochizuki, 1995; Parsons & Reid, 1990; Sigafoos & Dempsey, 1992), as well as various motivational and performance benefits that can be associated with choice making procedures (e.g., Bambara, Ager, & Koger, 1994; Dattilo & Rusch, 1985; Koegel, Dyer, & Bell, 1987; Peck, 1985). Some studies have also determined that choice making can serve to reduce the occurrence of problem behaviors exhibited by students with autism (Dyer, Dunlap, & Winterling, 1990;

Vaughn & Horner, in press), intellectual disabilities (Seybert, Dunlap, & Ferro, 1996), and emotional and behavioral disorders (Dunlap et al., 1994).

Choice making can be interpreted as an efficient means of assessing preference. That is, when presented with a menu of options, a student's choice is equivalent to an expression of a preferred alternative. Indeed, the procedures of choice making may have an advantage over the reported procedures for assessing preference in that the mechanics of choice making typically specify that a choice is to be made immediately prior to the instructional delivery and on a relatively frequent basis (Bambara et al., 1994; Dyer et al., 1990; Dunlap et al., 1991). This immediacy may have an advantage in that stimuli (e.g., instructional activities) that are assessed well in advance of the sessions, and at one time only, may be vulnerable to shifts in taste, satiation, or other influences.

Although choice making as an antecedent instructional and curricular strategy is linked closely to the favorable effects of preference, there is some reason to believe that the act of choosing, or exerting legitimate control, in and of itself, may produce favorable effects on a student's behavior. Although comparisons of behavior under conditions of choice making versus teacher-selected high-preference options have not shown significant differences in studies with individuals with intellectual disabilities (e.g., Bambara et al., 1994), data from a young child with severe behavioral and emotional challenges suggested that choice could be an independent factor (Dunlap et al., 1994). In this study, books from a pool of eight options were read to the child, Ahmad, while data were recorded on his disruptions and participation. During some sessions, Ahmad chose the book to be read and in other sessions the teacher selected the book. In the course of the investigation, one series of teacher selections was yoked directly to the previous series in which Ahmad chose the selections. The data showed that Ahmad's choices were associated with excellent participation and virtually no disruptions; however, the selections by the teacher of the same (preferred) options produced very high levels of problem behavior. Analyses of all of the data from this experiment suggested strongly that choice was an operative variable for Ahmad, irrespective of any detectable indication of preference. Although this finding has yet to be replicated with other participants, the possibility that choice per se can be an important motivator carries important implications for the design of curricula for students with special needs.

### **A PRACTICAL MODEL OF ASSESSMENT-BASED CURRICULAR MODIFICATION**

The literature reviewed in the preceding sections testifies to the impact that curricular and instructional variables can exert, and to the potential that well-placed antecedent interventions can have for improving student behavior. Indeed, it has been our experience in consulting and applied research that individualized alterations of instructional curricula can be extremely helpful as well as feasible to

implement. The following paragraphs are devoted to a brief description of the model that we have followed for identifying and implementing curricular modifications. More detailed descriptions of this process are available in other sources (e.g., Dunlap & Kern, 1993; Dunlap et al., 1991; Kern et al., 1994).

As discussed throughout this article, the model is founded on the acknowledgement that every child's curriculum is comprised of a multitude of variables and that a large portion of these are under the direct control of the classroom teacher or other school personnel. Curriculum-based interventions require an understanding of the specific variables exerting influence over an individual student's behavior. Functional assessment is a process that has facilitated the identification of influential variables (Foster-Johnson & Dunlap, 1993; O'Neill et al., 1990). The specific purpose of a functional assessment is to delineate functional relationships between the behavior an individual exhibits and stimuli or stimulus events in his or her environment. Importantly, a functional assessment should permit individuals to predict the conditions under which a specific target behavior will occur. With this information, reasonable and information-based curricular modifications can be made.

The process of conducting an intervention that is based on a functional assessment can be ordered in five steps (Bambara & Knoster, 1995; Dunlap & Kern, 1993), which are depicted in Figure 1. The first step is *hypothesis development*. The purpose of this step is to identify stimuli, groups of stimuli, or events that are typically associated with a target behavior. This step should culminate in the generation of one or more hypotheses specifying antecedent events identified to be associated with the behavior of interest.

Because of the abundance of variables potentially influencing behavior, the development of hypotheses requires a process of information gathering. Information can be acquired in a number of ways. These include reviewing archival data, conducting interviews, and direct observations. These methods may be used individually or conjunctively, depending on the complexity of the target behavior.

Archival records may provide a variety of general information. For example, they may delineate behavior management strategies used in the past that have been more or less effective. They also may provide information on physiologic variables that directly or indirectly interfere with school performance.

A number of structured interviews with the specific purpose of identifying variables associated with the occurrence of target behaviors are currently available (Sturmey, 1994). Most of these interviews are designed to be administered to individuals who are familiar with the student of interest. In addition, higher functioning students can be interviewed directly (Kern et al., 1994). The critical information that interviews should assist in providing is a delineation of specific environmental circumstances most often associated with occurrences of the target behavior and specific environmental circumstances that are associated with no occurrences of the target behavior.

Information can also be acquired through direct observation. Direct observations can be used to identify functional environment-behavior relationships or to confirm



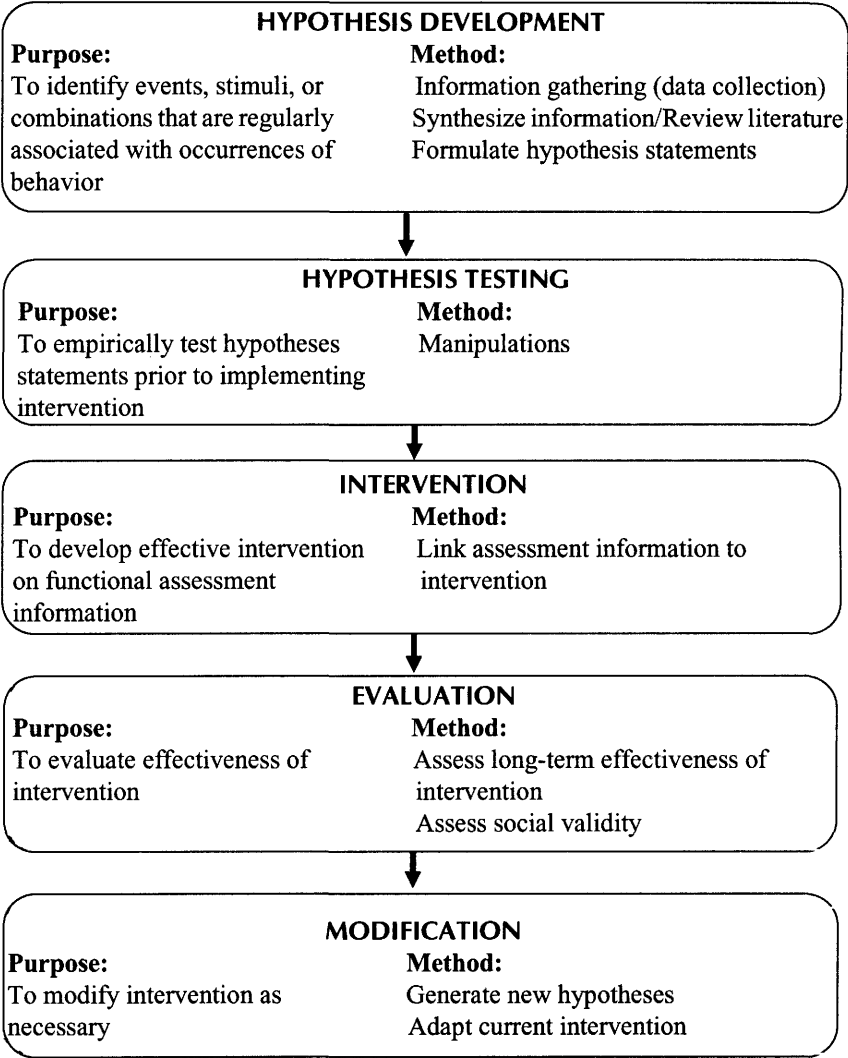


FIGURE 1. The process of assessment-based intervention

or clarify information obtained through archival records or interviews. We highly recommend the use of direct observations because they are generally the most objective method of identifying functional relationships.

Direct observations differ in their rigor, form, and extensiveness. Direct observations in school settings can vary from relatively casual, brief visits intended to add confirmation to an existing hypothesis, to a systematic process of data gathering

necessary to detect subtle patterns of interactions that govern long-lasting and severe behavior problems. Important considerations in the selection of an observation system is the availability of personnel for observation, the frequency of the target behavior and, of course, the severity of the problem and its implications for the student's education (Dunlap & Kern, 1993; O'Neill et al., 1990). The important result of direct observations is that they display a relationship between one or more environmental events and the target behavior.

Once sufficient information is obtained, it should be possible to develop hypothesis statements pertaining to the target behavior (Repp, Felce, & Barton, 1988). These statements should be based on interview and observation data gathered during the assessment and they should suggest manipulations that are feasible and under the control of the classroom teacher or other professional. Also, the statements should be phrased in such a way that they are observable and testable. For example, "Jill is better behaved when her fine motor and academic requirements are brief as opposed to lengthy" is an hypothesis statement that reflects a feasible curricular modification involving variables that are observable and testable.

The second step is *hypothesis testing*. In this phase, the hypothesis statements are empirically validated by conducting direct manipulations. Specifically, the implicated variable is modified while the level of the target behavior is assessed. This is generally accomplished using a reversal, withdrawal, or alternating treatments design. If the hypothesis is accurate, behavior should change systematically as the implicated variable is manipulated. This step has not been considered essential for all intervention processes (Dunlap & Kern, 1993); however, it is recommended especially for the more difficult behaviors in order to validate and refine one's understanding of the variable. Furthermore, hypothesis testing is a step that should be quite feasible, as long as there is sufficient control over the relevant curricular and instructional circumstances.

After hypothesis statements have been confirmed, the next step is *intervention*. During intervention, curricular modifications are implemented. That is, variables identified during hypothesis testing to be associated with desirable behavior are incorporated into classroom activities. Likewise, variables associated with undesirable behavior are removed, decreased, or ameliorated.

Following implementation of intervention, the next step, *evaluation*, should take place. Evaluation should be an ongoing endeavor to determine the effectiveness of the intervention over time. Finally, *modification* should occur as necessary. This includes modifying interventions that are ineffective or have lost their effectiveness. In addition, modifications should be responsive to environmental changes that students might encounter).

### Case Example

To illustrate the model described above, we introduce Eddie. Eddie was an 11-year-old boy with a label of "severely emotionally disturbed." In spite of numerous social and academic strengths, Eddie had great difficulties completing

his assigned work. Serious problem behaviors, such as tantrums and self-injury, would often ensue as demands for work completion escalated. Working in collaboration with Eddie's teachers, we conducted an extensive functional assessment, modified the curriculum accordingly, and evaluated the revised curriculum over several months of the school year.

Eddie's most severe behaviors were relatively infrequent, but they always were preceded by poor task engagement. Therefore, the primary focus of the assessment was on-task behavior. We then began to gather information for hypothesis development.

Information was gathered in several ways. Data on the antecedents and consequences of his behaviors (Bijou et al., 1968) were collected across several days to assess general patterns of his on-task behavior. Concurrently, to identify specific variables associated with his target behavior, structured interviews (Kern, Childs, et al., 1994) were conducted with each of Eddie's teachers, Eddie's father and Eddie himself (Kern, Dunlap et al., 1994). Finally, direct observation data were collected to determine the rate of his task engagement in relevant academic classes.

The data on antecedents and consequences indicated that off-task behavior occurred only during academic subjects. Eddie was engaged appropriately during music, physical education, free time, and similar activities. This information contributed to the assumption that Eddie's behavior served to produce escape from academic activities. The next step was to identify the specific dimensions of academic tasks that were associated with off-task behavior. The process of hypothesis development yielded five variables; however, we will describe only one to illustrate how the process unfolded (see Kern, Childs, et al., 1994 for a detailed description of Eddie's case).

During the information gathering phase, when Eddie was interviewed, he stated that he liked his work when he could finish it. One of Eddie's teachers reported that he rarely finished his assignments, and this was particularly the case in spelling where he was given a packet of assignments to complete for the week. Eddie's father reported that he thought Eddie was given too much work. When direct observations were conducted in spelling, Eddie was observed frequently checking through his packet to determine how much work remained. Further, on the few occasions when he was given only a small amount of work to complete, his on-task behavior increased. Each of these bits of information contributed to developing the hypothesis, "Eddie is more likely to be engaged academically when provided with multiple tasks of short duration rather than a single long task."

This brought us to the second step of the process, hypothesis testing. To test this hypothesis, reversal manipulations were conducted in Eddie's spelling class across several days. The general content of the assigned work remained the same while "long" and "short" task assignments were compared. During long tasks, Eddie was provided only one type of activity (e.g., write each of 20 spelling words three times). During short tasks, Eddie was provided several brief activities (e.g., complete one worksheet, write five spelling words three times, write sentences with five words). Direct observations during the hypothesis testing phase showed substantially higher levels of on-task behavior during short assignments.

During intervention, this modification (along with several others) was incorporated into Eddie's curriculum throughout the day. Once the intervention was in place, its effect was assessed through direct observation data across several months. Follow-up data were also collected periodically across eight weeks to determine the durability of the intervention. In Eddie's case, the intervention effectively increased Eddie's on-task behavior to levels acceptable to his teachers. The revisions in his curriculum promoted substantially improved behavior and he moved the next year into a general education placement where his behavior presented no further obstacles.

This general model of assessment and curricular revision has been implemented with a diversity of students in a variety of circumstances (e.g., Clarke et al., 1995; Dunlap et al., 1991; Umbreit, 1995). As with Eddie, some cases have required an extensive commitment in order to resolve predicaments that were considered intransigent and to develop understandings and design interventions needed to prevent institutionalization (Dunlap et al., 1991). However, the vast majority of cases present much more accessible information and suggest interventions that are developed and implemented with relative ease.

### SOME ISSUES OF APPLICATION

There are some issues that need to be considered in this approach to curriculum-based behavioral support. One concern that is raised frequently involves feasibility. The procedures of assessment and intervention that have been described in this article demand considerable individualization. The variables that have the potential to influence a student's behavior are numerous and, therefore, identifying and ameliorating the pertinent, idiosyncratic variables for students with histories of problematic behavior can require a process of concerted and personalized attention. Even though an individualized curriculum has been a legislated entitlement for students with special needs since 1975, the resources that are available to develop and implement such individualized approaches in educational settings are usually scarce.

As we have noted previously, some cases can require a lengthy process of assessment (information gathering and synthesis) and concentrated effort to devise effective interventions (Dunlap & Kern, 1993); however, it is our experience that these cases are infrequent. Most school-based behavioral challenges can be understood without undue expense, and many successful changes to the curriculum can be accomplished with fairly minor adjustments (e.g., Clarke et al., 1995; Dunlap et al., *in press*). Furthermore, it is worthwhile to acknowledge that this approach to behavioral support is still a recent development, particularly in educational settings. As the process matures, it is likely that more efficient strategies will be identified, allowing the procedures to be streamlined and the feasibility to be enhanced.

Individual curricular modifications often involve deviations from the standard curricula that are assigned for a campus or a school district. We are often asked to consider the implications of major curricular revisions on a student's preparedness

and for the general status of educational goals. These are complex issues. From a broad perspective, it can be argued that increased individualization would enhance the educational achievement of all children. With respect to the implementation of the process for an individual child, we have attempted to incorporate appropriate revisions while maintaining the integrity of those specific educational goals that have been identified as priorities on the student's I.E.P. (e.g., Foster-Johnson et al., 1994). In this respect, it is usually possible to ensure that instruction aimed at specific outcomes is continued. That is, modifications can most often come in the form of alternative methods to accomplish existing goals. On the other hand, it is sometimes appropriate to reexamine the extent to which a classroom activity really does address a meaningful outcome and, perhaps, to redefine objectives. If an activity cannot be supported by functional criteria, then it may be best to replace the task on the student's schedule. Some activities can be removed for a period of time and then brought back at a later time. It is our recommendation that this occur after serious problem behaviors are no longer the primary concern, because such behaviors can be severe barriers to the attainment of educational objectives and the development of social competencies. However, the social and ecological validity of such curricular adjustments need to be determined on an individual basis.

An additional issue is generalization. The focus of the model described in this article is on curriculum and related antecedent events. The strategies involve presenting stimuli and stimulus characteristics that are associated with desirable behavior, and removing or ameliorating those that are associated with problems. Essentially, this is a strategy that involves the manipulation of stimulus control (Halle & Spradlin, 1993). While this approach can produce rapid and durable behavior change, it should not be expected that observed patterns of behavior change will occur in other settings. Behavior change may be limited to the specific environment in which the curricular revisions occur. Though such context-specific behavior change may be quite satisfactory for many school problems, and though the reduction of disruptive behavior can provide an opportunity for more adaptive repertoires to develop, it is nevertheless prudent to recognize that curricular revision does not explicitly provide a mechanism for generalization to occur.

We also wish to emphasize that the model of assessment and curricular modification does not comprise the full extent of behavioral support. It is a component that has been demonstrated to be effective in school contexts, but it is only one component. Comprehensive and durable behavior support plans must also teach adaptive alternatives to undesirable behavior (e.g., Carr et al., 1994; Durand, 1990). Such instruction might focus on communication, self-control strategies, or some other form of adaptive alternative behavior. Finally, it should be recognized that the approach described in this article addresses behavioral concerns during school hours. As such, it should be viewed as only one aspect of a comprehensive plan of behavioral support. A complete plan must regard all environments in which an individual interacts, and consider all aspects that contribute to a student's development and long-term well being.

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