Editors' Comment

After the family, the school environment is the most important influence in a child's life in promoting social, emotional and academic development. As children start and progress through school they are continually called upon to adapt to new expectations, and therefore a certain amount of anxiety is to be expected. However, when a particular behavior results in undue stress for the child and elicits negative reactions from others, the behavior represents a distress signal. When this occurs, a thorough analysis of what the problem behavior actually means to the individual child can lead to interventions that can change the behavior and result in a more productive adaptation for the child. Through the process of Functional Behavioral Assessment (FBA) teachers and other school personnel come to understand the meaning of the problem behavior, the situations that trigger or sustain it, and can plan interventions to make changes. In this issue of the *NYU Child Study Center Letter* we examine the possible function the problem may serve for the individual child, the concrete steps involved in conducting a behavioral analysis, and appropriate interventions. Although the FBA concepts discussed in this issue focus on school behaviors, the principles can be applied to other situations by parents and others working with children.

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PROBLEM BEHAVIORS IN THE CLASSROOM: WHAT THEY MEAN AND HOW TO HELP

FUNCTIONAL BEHAVIORAL ASSESSMENT

Introduction

Many children display inappropriate or problem behaviors in the classroom which can make it difficult for them to learn, cause harm to the child or others and isolate the child from his or her peers. We often speak of problem behaviors in terms of the effects they have on others. Therefore, we may label behaviors as "noncompliant" (e.g., when a child refuses to join a class activity), "disrespectful" (e.g., when a child uses bad language) "aggressive" (e.g., when a child throws a book). Functional Behavioral Assessment has a different focus.

What is Functional Behavioral Assessment (FBA)?

Functional Behavioral Assessment, is a process which looks at behavior in terms of what the behavior accomplishes for the *individual* child, rather then the effects of the behavior on others. FBA assumes that behavior is a child's attempt to adapt to a specific situation. In conducting an FBA we gather information that helps us to understand how the behavior serves a useful *function* for the child. In basic terms, FBA is a process for collecting information to help determine why problem behavior occurs and to serve as a basis for the development of behavioral intervention plans.

A recent review of relevant studies analyzing the effectiveness of FBA provides convincing evidence of its utility for identifying behavior function and for developing effective interventions.[1]

FBA aims to:

1) define behavior in specific, objective, and measurable terms,

2) determine what aspects of the environment or situation elicit the behavior,

3) identify what consequences maintain the behavior.

Development of a behavioral intervention plan based on FBA therefore involves a frame of reference that sees the behavior as an adaptation for the child. The data collected in the FBA process will help to identify ways to address the problem behavior. Once we understand what purpose the behavior serves for the child, we can work to:

1) change aspects of the situation that give rise to the behavior,

2) teach and promote more appropriate ways of meeting the same needs through the development of alternative behaviors,

3) modify the responses of other people to the behaviors so that problem behaviors do not result in "payoffs" for the child.

Common Functions of School Problem Behaviors

When conducting an FBA, it is important to gain understanding about what a child does (the behavior) and, more importantly, why a child does it (the function). Behaviors, even problem behaviors, usually serve a "useful function," or purpose, for the child. Following are some common functions:

1) Behaviors can be rewarded by something positive. This positive reward can be tangible, such as access to a toy or game, a preferred activity, or a privilege. The reward can also be a positive feeling, as when a child accomplishes or masters a task or gains a sense of belonging.

2) Behaviors can be rewarded by attention. From adults, positive attention can be provided in the form of help with work or resolving a conflict with a peer. Negative attention can be provided in the form of a reprimand or a display of anger, which may actually be desirable for some students. From other students, positive attention usually takes the form of laughter, recognition as someone who entertains the class or distracts the class from work. Negative attention can take the form of fear of the child by others or recognition as someone who breaks rules.

In behavioral terminology, the above two functions can be described as "positive reinforcement." Behavior is rewarded by producing a positive event and therefore the frequency of the behavior is more likely to be maintained or increased. For example, a child with learning difficulties raises his hand to ask for help on a challenging task. The teacher helps the child by providing one-to-one instruction. The child is more likely to raise his hand in the future when presented with a difficult task because this behavior was positively reinforced.

3) Behaviors can provide relief or escape from something unpleasant. For example, when behavior results in expulsion from class during activities the child finds difficult or unpleasant, when behavior engages others in ways that distract from a task the child finds hard, or when behavior keeps people away and the child feels more comfortable being alone.

In behavioral terminology, this is called "negative reinforcement." Behavior is rewarded by causing the termination or reduction of a negative event and therefore the frequency of the behavior is more likely to be maintained or increased. For example, a child with learning difficulties curses at the teacher when given a complicated task. The teacher sends the child to the principal's office and the child is not required to finish the task. The child is more likely to curse at the teacher in the future to avoid completing work, because the initial behavior was negatively reinforced by allowing the child to escape the situation.

4) Behaviors can help to change a person's level of stimulation or mood. Some children have a heightened need for stimulation; they get bored easily, waiting is highly unpleasant, and they are often impulsive. Behaviors for these children may serve the function of generating excitement by getting a rise out of others. Some children become easily over stimulated or easily irritated. Their behavior may function to avoid high-stimulation situations. Sometimes behaviors themselves produce certain sensations that a child finds highly pleasurable. This is called "automatic reinforcement" and is more common among children with severe developmental difficulties. Examples include banging things, certain types of self-injurious behavior, and repetitive behaviors that have no clear purpose.

Influences Beyond the Immediate Situation

Behavior is highly determined by the function it serves within the immediate situation; however there are influences on behavior, called environmental factors, which are not immediately visible in the classroom situation. These factors may include problems at home, problems on the bus, and so on. Other important influences include specific individual vulnerabilities of the child. These vulnerabilities can lead to problematic reactions to situations that other children handle with greater competence and composure. While the range of these influences is practically endless, some common ones are worth mention. Child factors that can influence a behavioral response in a given situation include temperament, presence of a psychiatric disorder, developmental factors (most notably learning disabilities), medical conditions, and medications. Social environment factors to consider include teacher behavior or characteristics, home environment, peer environment, and the family's relationship with the school.

Therefore, the expanded model for FBA takes into account the broad context (background) factors, antecedents that occur immediately before the behavior, the behavior itself, and the consequences the behavior elicits. The purpose of learning about these factors is to help determine the function the behavior serves for a particular child.

The "How To's" of FBA

The major steps in FBA include:

- identifying problem behavior(s) in specific, objective, measurable terms, and prioritizing these problems,

- gathering information that enables the formulation of valid hypotheses about the behavior's function,

- understanding the child in the context of broader environment influences on behavior that help determine the behavior's function.

Once a child's problematic behavior is identified and agreed upon, the following procedures occur:

1) Interview with teacher and/or other referring professional to obtain greater specification of the areas of concern, and then to elaborate on context and consequences of these problems. Therefore, the interview covers setting, variations in time of day, specification of academic subjects, if there are other children who are consistently involved in the problem behavior, staff responses, peer responses, and previous attempts to promote improvement.

2) Review of student's record to look specifically at the pattern of grades, behavior reports, year of onset of difficulties, attendance and disciplinary records, and changes in schools.

3) Interview with parent to determine the presence or absence of similar difficulties at home and how they are addressed, history of treatment, the child's strengths, and any stresses in the home that school professionals should be aware of. The conversation should be forward looking, emphasizing the usefulness of understanding the past in order to understand what changes are necessary to be more effective in the future.

4) Interview with student is appropriate for the majority of students and should be a supportive discussion which focuses on the student's view of how things are going in school. It is important to clarify that the purpose of the meeting is not that the child is "in trouble," but rather to put heads together to think about how things could go better at school.

5) Direct observation(s) to see how well the interview data fits the observed behavior. Sometimes the way the behavior is described is not a good objective description of the behavior. This is especially true for reports of how frequently behaviors occur; low-frequency, high problem behaviors that are experienced as very annoying are perceived as occurring at higher rates than they really occur. Another reason for direct observation is that there may be triggers and consequences that were not reported but that become clear once the behavior is observed. When conducting direct observations, it is important to identify what may contribute to the identified behavior. Questions to keep in mind while doing an observation include:

- What is unique about the environments where the behavior is not a concern?

- What is different in the places where the problem behavior occurs? Could the behavior be related to how the child and teacher get along? Does the number of other students or the work a child is asked to do cause a problem? Could the time of day or a child's mood affect the behavior? Was there a bus problem or a disagreement in the hallway?

- Is the behavior likely to occur in a specific set of circumstances or a specific setting? What events seem to support the problem behavior?

It is important to note the function of behavior in the above example. One of the common functions of behavior discussed earlier is that behaviors can provide relief or escape from something unpleasant. In the example on the following page, Johnny engaged in a problematic behavior (getting out of his seat) in order to avoid having to do a math worksheet that he found difficult.

Summarizing Assessment Findings and Determining the Function of Problem Behavior

After the relevant information has been collected regarding the child's problem behavior, the next step is to generate a hypothesis about l) how problem behavior relates to immediate triggers, 2) broad context background factors, and 3) consequences. A template for a summary statement that expresses a functional hypothesis is:

When _____ and _____ 　　　　　(setting)　　　　　　　　　　　(immediate triggers) [Child's Name] _____ 　　　　　　　　　(problematic behavior) in order to _____ 　　　　　(function of problematic behavior) (adapted from O'Neill et. al, 1996)[2]	When in math class and given a difficult worksheet 　　　　(setting)　　　　　　　　(immediate triggers) Johnny will get out of his seat and go to an activity station 　　　　　　　　　(problematic behavior) in order to avoid having to do the assignment 　　　　　(function of problematic behavior)

Planning Interventions

The hypothesis about the function of the behavior directs us toward interventions that follow logically from the information obtained during FBA and the conclusions made from that information. Interventions can be developed to impact behavior by making changes in the triggers, consequences, skills, and broad contextual factors. If the FBA process has thoroughly examined all of these influences on behavior, interventions can be selected that are tailored to the student's specific needs. When planning interventions, it is important to keep in mind that the process of altering problem behavior involves change in the child's behavior in a variety of settings and in one or all of the following groups of people: family, teachers, staff, and peers.

The goals of interventions are to make problem behaviors irrelevant, inefficient, and ineffective compared to a replacement behavior.

Irrelevant: The problem behavior represents an adaptation to a situation. By changing the situation the problem behavior no longer serves a function and becomes irrelevant. For example, Johnny leaves his seat during independent work time. However, this is true only of math, not language arts. Johnny finds it hard to manipulate numbers in his head. With his behavior, he avoids the task. An intervention that alters the task demands to a level that Johnny can cope with would make escape-motivated behavior irrelevant.

Inefficient: Problem behaviors become comparatively inefficient when a more acceptable replacement behavior fulfills the same function faster and with less effort. For instance, Susie disrupts the class with silly comments in the middle of silent reading time. FBA indicates that this behavior likely serves to get teacher attention, which ends up providing clarification for her on what the assignment is. If this purpose is achieved more easily by asking Susie privately to repeat her understanding of the assignment and reduce her uncertainty about what to do, then this new behavior would become more likely to occur. It is more efficient because it is easier and she gets the attention she's seeking more quickly, without disrupting the class.

Ineffective: Changing the consequences that follow problem behaviors can make them ineffective at obtaining the "payoff" that maintained them. So, if the FBA found that Joe's bullying successfully got the other kids to give in to what he wanted, then changing the responses of the entire class from submissiveness to assertion would make his behavior no longer effective as a means to extract things from classmates. If helping the entire class to speak up and support each other against Joe's intimidation were coupled with help for Joe so that he could feel more important, powerful, and accepted for prosocial behaviors, then diminished bullying would be expected.

In general, interventions are directed at modifying the trigger(s) of a behavior or the consequences that act to maintain the behavior. Additionally, interventions can address problem behaviors via a whole-class or individual child approach.

Interventions that Address Triggers

1) Whole-class approaches: At times, it may be more efficient to work with a teacher on modifying aspects of the classroom and aspects of overall classroom management teacher behavior to affect the class' overall level of behavioral control. A modification in the way that teachers give directions and assignments, and how they respond to misbehavior, has a significant impact on classroom behavior results.

• **Class rules:** Class rules are helpful when they are developmentally, appropriate, concise and clear ("Behave appropriately" is too vague, "Follow adult directions" is better), posted in

a visible location, phrased as what students should do as opposed to what they should not do ("No yelling" could be restated as "Speak calmly and respectfully"), and limited in number (more than five rules dilutes the effectiveness of all of them). In order for the rules to become incorporated into children's minds and behaviors, teachers should refer to them often using the same language as how they are written. When a child is following a rule, the teacher can comment, "Elizabeth, I like the way you asked for my help in a calm and respectful manner." Or, if a child is not following a rule, the teacher can comment, "Daniel, in this class we follow adult directions."

- **How directions are given:** Good directions to students with behavioral issues should be clear and concise and delivered in a firm, neutral tone of voice. The likelihood of compliance increases when directions can be given in close physical proximity as well. Some common problems with commands issued by teachers and parents, which significantly reduce the likelihood of compliance are the following:

  Question directions appear to the child as if there is a choice when none really exists. These can be pleasant ways to request a child to do something, but lack the directness that some children need to get focused on a task. *Example:* "Sam, will you bring your reading book to the circle?" *Improvement:* "Sam, bring your reading book to the circle."

  Chained directions link several directions together. It seems like extra work to give fewer directions more frequently, but in the end it feels more successful for the child as well as the adult. *Example:* "I want all of you to take out your spelling books, put your notebook paper on your desk, write your name at the top and number your paper from one to ten." *Improvement:* "Take out your spelling books and one piece of notebook

paper." [Wait for class to follow through.] "Write your name at the top and number your paper from one to ten."

Vague directions, which are not clear about the behavior that is to follow can be confusing, leading students to not fulfill the request or ignore it entirely. *Example:* "I need everyone to behave right now!" *Improvement:* "Everyone needs to sit in their chairs now."

- **Managing transitions:** Transitions are a high-risk time for behavioral problems. Clear communication about the next activity and announcing when there are 10, 5, and 2 minutes left help to prepare students who become more disorganized when they face uncertainty or have to shift gears. Clear reminders about the class rules during transitions should also occur often.

2) *Individual approaches:* When problem behaviors are elicited in performance-oriented academic situations, the nature of the child's learning activities may be altered to have a positive impact on behavior. Some specific areas include:

- **Content and process:** Embedding content in applications meaningful to the student can be helpful, such as teaching percentages by using baseball statistics. Inclusion of hands-on activities can also be helpful as they allow the student to manipulate tangible material in a concrete manner.

- **Directions for academic tasks:** Students may have difficulties processing task directions that are presented during whole-class instruction due to difficulty with attention span, language comprehension, or sometimes just lacking the confidence that they are going to do the right thing. These students may benefit from visual prompts, being in close physical proximity to the teacher when directions are given, and being "pre-taught" about the assignment prior to it being taught to the class.

- **Task complexity:** For many students, complex, multi-step tasks that may easily become automatic for their classmates continue to require a lot of effort to sequence properly. Interventions that may help these students include having a model available showing another correctly completed problem, providing recognition and encouragement at a more frequent rate, shortening the length of assignments, and providing organization hints such as color coding activities.

Interventions that Address Consequences

1) *Whole-class approaches:* Class-based incentive systems are designed to reward positive behaviors while discouraging unproductive or negative ones. The specific behavioral goals and the rewards are general to the class, and may or may not take into account the specific function of the problem behavior for any given child. For example, a teacher may have implemented a system whereby children can earn extra computer time for completing work within an allotted amount of time. This intervention will be of little use for the student whose desire to avoid the work at hand outweighs the value of computer activities. However, class-wide approaches do have the potential to sustain the motivation of some at-risk children and engage the interest of the entire class in more appropriate behaviors. Examples of whole-class interventions include:

- **Corrective feedback, or "reprimands":** Corrective feedback should be given as immediately as possible following the onset of inappropriate behavior and, when possible, should be given privately to the child. The tone of voice should be clear and firm and not exceed normal speaking volume.

- **Public recognition:** A weekly awards ceremony that recognizes who worked to get along with and respect others or set a good example can be a strong motivator for younger children in particular. Ribbons or stickers are tangible signs of recognition that kids enjoy. However, intangible rewards, such as line-leader for the day or teacher assistant are highly powerful and cost-efficient rewards as well.

- **Simple token economies:** In this type of program, a grid on the blackboard or a poster has rows for students' names, and the columns show a few important behaviors. Points are earned and lost for positive and problem behaviors, respectively. So students can both earn points and lose points depending on their behavior. A pre-determined amount of points are then traded in at the end of the day or week for a reward.

2) Individual approaches: When thinking about a consequence-based plan for an individual student, the same considerations apply as for a class-wide intervention. The most common individual approach is a daily report card which is completed at school by the teacher and rewarded at home by the parents. Daily report cards are most effective when the goals are limited in number (3 to 5) and range from more easily accomplished goals (to provide a sense of success) to more challenging ones. The May/June 2002 issue of the Child Study Center Newsletter, *Treating ADHD in School Settings,* reviews the daily report card system in greater detail.

Implementing Interventions

Interventions should be instituted when they have the greatest likelihood of success. This means starting when there will be at least two weeks of uninterrupted, fairly regular school routine. This also allows time for the teacher to anticipate and accommodate to being a bit overwhelmed while becoming comfortable with the execution of the behavioral plan. Family involvement is a key, if not a critical component for success. Every effort should be made to collaborate with the family throughout all steps of the FBA and behavior plan. It is essential that teams developing plans think through every aspect of what needs to be done and designate an individual to manage each. Each plan requires monitoring and evaluation to determine how accurately the intervention is being implemented and how effective it is in improving the targeted behavior. It is common for plans to be tinkered with at this stage to fine tune the reward system or alter some other aspect of the plan to ensure greater success.

Conclusion

Functional Behavior Assessment is a process which leads to an understanding of problem behavior in terms of its meaning to the individual child. A core component and clear advantage of FBA is that it provides information about the specific function or "why" of behavior, the context of behavior, and the consequences the behavior evokes. The strong emphasis on the factors that precede problem behavior is a major distinguishing characteristic of FBA. Therefore, when teachers and parents use information obtained from FBA to help a child learn new skills, aspects of the situation that give rise to or reinforce the problem behavior may be changed. The FBA process has proved to be an effective strategy for anyone working to improve the lives of children with behavior problems.

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References
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