4

Functional Behavior Assessments and Behavior Support Plans

Chapter Objectives

After studying this chapter, you should be able to

- explain what it means to say that behavior is contextual,
- illustrate the different functions of behaviors,
- explain why functional behavior assessments are important,
- describe the types of indirect assessments,
- characterize the types of descriptive analyses,
- describe the characteristics of a functional analysis,
- describe the advantages and disadvantages of each type of functional behavior assessment,
- depict when each type of assessment should be conducted, and
- characterize how to develop an individualized intervention based on assessment data.

VIGNETTE Developing a Behavior Support Plan

MR. MALONE WAS A SIXTH-GRADE TEACHER. He seemed to have good management methods in his classroom, and the students were generally well behaved. Mr. Malone set good rules and routines, and the students followed them for the most part. Mr. Malone also provided effective instruction. The students' academic performance was good on the whole.

Unfortunately, Mr. Malone had a female student named Katrina who seemed to have difficulties following rules. She was frequently out of her seat, rarely raised her hand to answer a question, and tended to blurt out answers, disturbing the other students. Mr. Malone tried warnings and time-outs for Katrina when she broke a rule or caused disruptions. These techniques worked at first but quickly lost their effectiveness. Mr. Malone was at the end of his rope. He had tried every management technique he could think of, even going as far as asking Katrina's parents for suggestions. Katrina seemed to know what she was doing. When asked to explain what she had done, Katrina would correctly describe her behavior. She could also describe why her behavior was inappropriate. Katrina indicated, however, that she could not help her behavior. She could not tell Mr. Malone why she was misbehaving; she would only say that she was sorry and would not do it again. Then, at a later time, she would repeat the unwanted behavior.

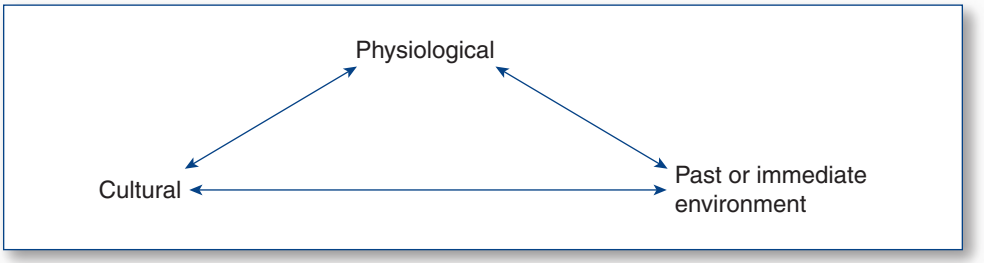
Mr. Malone was not sure what to do. He generally liked Katrina. She could be pleasant to be around when she was behaving appropriately. He knew something had to be done, though, because her unwanted behavior was becoming more frequent. Mr. Malone was also concerned about improving Katrina's behavior soon because he was beginning to suspect that an emotional disturbance was causing her to act this way.

Overview

Typically, there are three explanations for a student's behavior. First, it can be said that a student is behaving in a certain manner due to some physiological reason. She was born with a particular temperament, which is why she acts as she does. Second, a student may act a certain way because she comes from a particular social context or background. Finally, a student may behave a certain way because of a variety of immediate happenings in the school context. Figure 4.1 shows these three main explanations for behavior: physiological predispositions, cultural reasons, and the past or immediate environment. Thus, physiology, culture, and the learning environment account for why we, as teachers and students, do what we do.

Suppose we take each of the three possibilities to describe why a behavior occurs (i.e., physiology, culture, and environment). First, physiology is a critical aspect of a behavior. We are all physiological beings, and our physiologies interact with the environment. However, are physiologies sufficient in explaining why we do something? The answer is no. Physiologies interact with the environment and are, to a large extent, dependent on the environment. This being said, mental health problems, many of which are physiological in origin (e.g., schizophrenia), can have an enormous impact

Figure 4.1 Causes of Behavior



on student behavior in school. Culture comprises our broader learning history including family, social group, and nationality. Culture, like physiology, will have an enormous impact on the behavior of students within a school context. Such dynamics as peer group affiliations can be influenced by the broader cultural context, as will interactions between teachers and students, especially if cultural differences make it difficult for these two groups to communicate and interpret one another's behavior. The school environment (e.g., school and teacher responses to behavioral support needs, bullying by peers, instructional strategies used, nature and content of curriculum) is critical in explaining behavior, but, again, by itself, it does not tell us the influence physiology and culture can have over behavior. Thus, to understand why we do what we do, we must consider these three aspects of human behavior.

It is critical that teachers take into account physiological and cultural influences on student behavior and how they will impact behavior support plans. A **behavior support plan** (also called a **behavior intervention plan [BIP]**) is comprised of written documents describing the environmental changes that will need to take place to bring about changes in a wanted or an unwanted behavior. Ultimately behavior support plans will impact the nature of instruction, curriculum, and other aspects of the school routine for students. Teachers can change the way they teach, the way they interact, and the way they respond to a student. Therefore, when discussing why students do what they do, teachers must look for clues in the immediate classroom environment. That is not to argue that the classroom environment explains everything; instead, the classroom environment and its corresponding effect on behavior are what teachers should focus on when it comes to building behavior support plans because these are the aspects of behavior over which teachers have some control.

This chapter describes environmental reasons why students behave as they do. The purposes of this chapter are to provide explanations for student behavior and describe how assessments aimed at finding these explanations are conducted. Additionally, an explanation will be provided on how to use findings from these assessments to develop effective individualized behavior support plans.

The content of the current chapter and the previous one are inextricably related. Both of these chapters deal primarily with the assessment of behavior. In Chapter 3, we discussed the process of identifying behavior and tracking behavior change. In the

current chapter, we describe methods of understanding the context that may influence challenging behavior. The information in this chapter is essential in terms of selecting interventions to be used as part of an effective behavior support plan.

What Are the Assumptions of Behavior Support?

Before developing a behavior support plan, a **functional behavior assessment (FBA)** should be conducted; an FBA is an assessment that is used to determine the environmental functions of wanted and unwanted behaviors. Certain assumptions must be made during the FBA for it to be successful. These assumptions come from a particular conceptual position of why we behave the way we do. There are several such conceptual systems including psychoanalytic, constructivist, cognitive, humanistic, and behavioral systems. The conceptual system used throughout this book comes from a behavioral model. A behavioral model assumes all behavior is caused and that the cause is ultimately external and physical. So our assessments and our support plans focus on finding external or environmental factors that contribute to challenging behaviors (when we assess) and that support adaptive behavior (when we build behavior support plans).

Contextual Behavior

Human behavior is contextual; it should be interpreted based on environmental factors. So assessment of behavior and support plans will focus on the student's environment (e.g., school, physiological, home). Assessment and intervention will steer away from internal or mentalistic reasons that students behave the way they do. Mentalistic explanations produce circular definitions of behavior and have not proven successful in terms of developing empirically validated, successful support plans for students with challenging behavior. So to understand behavior, we must have a clear picture of what the behavior is (see Chapter 3), and then we must get a clear picture of the context in which it occurs. This context may include culture, physiology, and school context. Other professionals, such as a medical practitioner or psychiatrist, can provide us with insight regarding physiological variables (e.g., mental health problems, illnesses) that influence a student's behavior. Interviews with the student's family or the student can provide us with insight into cultural influences on the student's behavior. Both physiological and cultural influences need to be taken into account as part of assessment and intervention within a behavioral framework. Finally, the school context, both broadly (school rules, peer relationships) and specifically (curriculum and instruction), needs to be examined with regard to its influence on behavior.

Functions of Behavior

What happens following a behavior influences the probability of the behavior. If a behavior increases in probability under certain environmental conditions and following

Behavior in the classroom is affected by what it receives in return.

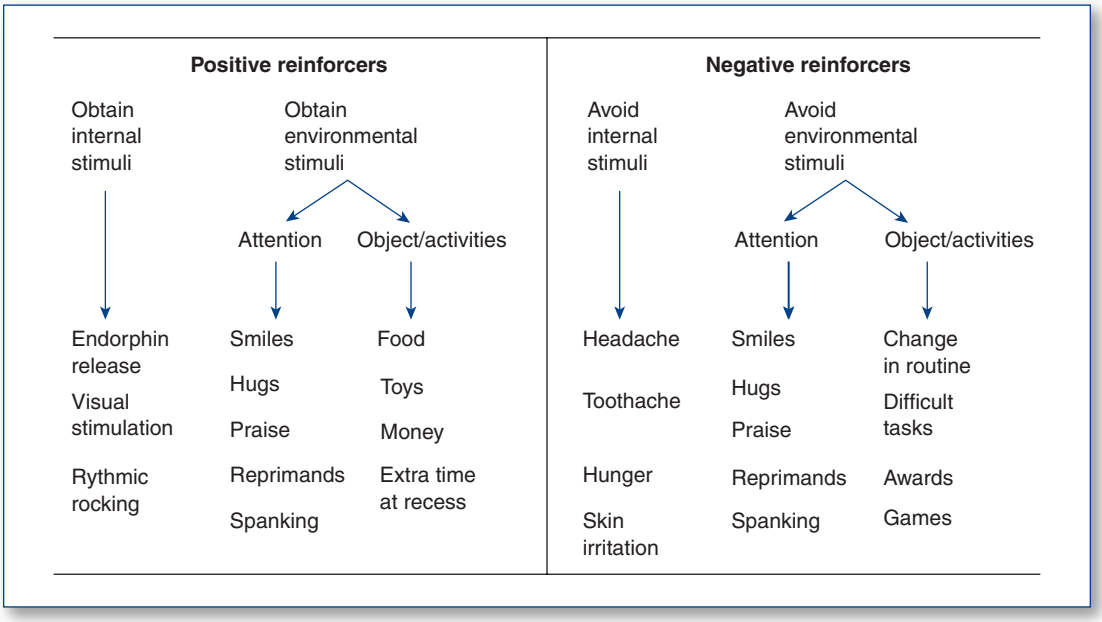
certain consequences, then those consequences are called reinforcers. If a behavior decreases following consequences, then those consequences are called punishers. What we try to do with our assessments is to identify the relationship between the behavior of interest and various consequences. We try to find the consequences that maintain a behavior or reduce the likelihood of a behavior. This interaction between behavior and consequences is called a **functional relationship**. These contextual events will reliably occur either just before the behavior or just after the behavior. A functional relationship is similar to what others talk about as a cause-and-effect relationship (e.g., my behavior support plan caused an improvement in student behavior).

Now consider the information required if we are to know the function of a behavior. Say we know that, when a teacher provides an instruction to begin work (antecedent), there is a high likelihood a tantrum (behavior) will result or that, when a student has a tantrum (behavior), the teacher will send the student away from the group (consequence). Therefore, the probability of a particular behavior occurring is higher when a particular instruction is provided or when the teacher responds to the behavior in a certain way. What could this information provide to the teacher? Once the function of a behavior is known, it may become possible to change the instruction to avoid the unwanted behavior or to react to the unwanted behavior in another way. Thus, determining the function of a behavior can be critical in developing an adequate behavior support plan for the student.

Essentially, functions can be divided into two categories. As shown in Figure 4.2, the categories involve positive reinforcement and negative reinforcement. Under positive and negative reinforcement there are several subcategories: sensory (internal stimuli), social (attention), and tangible (objects or activities). Under both positive and negative reinforcement categories, behaviors increase as a function of consequences. A student may engage in behaviors because, in the past, doing so allowed the student to gain access to consequences, such as teacher attention or certain activities. The student can also engage in behaviors because doing so once allowed the student to escape attention or avoid activities. Increases in behavior that resulted in the removal or avoidance of consequences are termed negatively reinforced. Increases in behavior to gain access to items or activities are termed positively reinforced. The processes of positive and negative reinforcement describe increases in behaviors. Distinguishing between these two categories of reinforcement is critical in terms of developing effective support plans for students.

Also, notice the sensory feedback category. Sometimes, consequences maintaining behavior may be internal or physiological. In the positive reinforcement category, we see that students can behave to obtain some type of feedback from one or more of the senses, such as visual stimulation, rhythmic rocking, or an endorphin release. Students with

Figure 4.2 Potential Functions of Behavior



autism spectrum conditions often engage in such behavior patterns (O'Reilly et al., 2010). Likewise, at times we attempt to escape or avoid sensory stimulation by emitting a behavior to do so. For example, if a student is sleep deprived, he could engage in negatively reinforced challenging behavior that will result in his avoidance of academic work tasks (Sigafoos, Arthur, & O'Reilly, 2003).

Broader influences, above and beyond the consequences that maintain certain behavioral responses, can also affect behavior. We have discussed these broader influences in terms of physiological and cultural variables earlier in the chapter. However, these additional broader influences should be understood in terms of this functional description of behavior as well. Such broader contextual influences can act as setting events or establishing operations, conditions that influence the power of reinforcing consequences (Sigafoos et al., 2003). For example, sleep deprivation and hunger, both physiological variables, may increase student aversion toward academic tasks and thereby increase the probability of tantrums to escape and avoid such activities. A white teacher from a privileged middle-class background may study the culture and language of immigrant Hispanic students in her class and adapt her curriculum and instruction accordingly, thereby increasing academic engagement and decreasing acting out from these students. These examples are potential setting events or establishing operations, and they explain why it is important to consider such broader variables when examining the function of challenging behavior and developing behavior support plans.

Other Assumptions

Two other assumptions should be considered when one conducts an FBA. First is the assumption that an FBA will lead to an intervention. We do assume that, if we can find out what the function of a behavior is, we will be much more likely to be successful when we develop a behavior support plan. Second is the assumption that, when we remove the function or source of reinforcement from a behavior, the behavior will end. This assumption is basic to any behavioral interpretation of human behavior. This interpretation flows from the **Law of Effect** proposed by E. L. Thorndike (1905), which says that, when a behavior is reinforced, the behavior will be more likely to occur in the future, whereas, when a behavior is punished, the behavior will be less likely to occur in the future. The process of the behavior becoming less likely to occur in the future is called extinction. Therefore, we assume that, if we can find the source of reinforcement and remove it, the behavior will decrease in probability in the future.

Why Is It Important to Know About Functional Behavior Assessments?

There are two major reasons it is important for teachers to understand and be able to implement FBAs. First, interventions derived from FBAs are more effective and less intrusive than interventions that are not derived from FBAs (Carr et al., 1999). Therefore, an FBA is an evidence-based best practice. Second, teachers are required by law to use FBAs to develop behavior support plans. These issues are discussed in detail below.

FBAs examine the circumstances surrounding the occurrence and nonoccurrence of challenging behavior. The goal of these assessments is to identify events that are reliably or consistently present when the challenging behavior occurs and does not occur. FBAs are considered important for two reasons. First, an FBA is believed to improve the quality and potential success of a behavioral intervention. In other words, the more that is known about the behavior, the better the intervention that can be designed to fit the needs of the particular situation. Second, FBAs are believed to lead to less aversive behavioral interventions. Interventions designed following FBAs are considered less aversive because they involve determining the likely reinforcers for a behavior, which allows the removal of the source of reinforcement for challenging behavior and the use of this form of reinforcement to increase appropriate skills, an overall process that decreases the need to use punishment or negative reinforcement (e.g., warnings). Behavior support plans derived from an FBA focus on educational interventions to replace challenging behavior rather than on interventions designed to reduce challenging behavior.

Under certain circumstances, FBAs are required by federal law (Individuals with Disabilities Education Improvement Act [IDEA], 2004). An FBA and behavior support plan (also called a behavior intervention plan [BIP]) are considered to be a matter of best practice and may be required in some states (Zirkel, 2009). Under IDEA regulations, they are sometimes "a required IEP team consideration":

> In such cases, depending on the frequency and severity of the learning–interfering behaviors, an FBA and/or BIP may be appropriate, but neither is required as a general matter.

> The only situation in which IDEA specifically requires an FBA and BIP is for a disciplinary change in placement for behavior that is a manifestation of the child's disability (§ 300.530[f][a]). Less strongly, the IDEA regulations require an FBA "as appropriate" and "behavior intervention services and modifications" designed to prevent reliance upon (a) a disciplinary change in placement for behavior that is not a manifestation of the child's disability, or (b) the district's permissible (i.e., for weapons, drugs, or serious bodily injury) removal of the child to a 45-day interim alternate educational setting (§ 300.530[d][ii]). (Zirkel, 2009, p. 74)

Therefore, all educators should have at least a working knowledge of FBAs. In addition, although FBAs are required to be used in the development of a behavior support plan for individuals with identified disabilities, these assessments should also be used for all students for whom such a support plan is needed, irrespective of disability.

What Are the Types of Functional Behavior Assessments?

Before a description of FBAs is provided, it should be pointed out that the federal law does not define the key features of an FBA and has provided little guidance on how they should be completed (Scott, Anderson, & Spaulding, 2008). As a result, the effectiveness with which schools implement FBAs has been questioned (Blood & Neel, 2007; Couvillon, Bullock, & Gable, 2009). With this in mind, we will provide a description of what is considered best practice—that is, how FBAs *should* be conducted. There are three types of FBAs that teachers can use to identify environmental factors that may be maintaining challenging behavior: indirect assessments, descriptive analyses, and functional analyses (Sigafoos et al., 2003). The strengths and weaknesses of each category of assessment are included in Table 4.1 and are discussed in detail below. These assessments are described in an order moving from the least extensive assessment (indirect assessment) to the most extensive assessment (functional analysis).

Table 4.1 Types of Functional Behavior Assessments

Indirect Assessments: Subjective verbal reports of behavior under naturalistic conditions	
Examples:	Interviews, checklists, rating scales
Advantages:	Efficient, easy to use, good starting point
Disadvantages:	Reliability and validity questionable, starting point not endpoint

(Continued)

Table 4.1 (Continued)

Descriptive Analyses: Quantitative direct observation of behavior under naturalistic conditions	
Examples:	A-B-C analyses, observation forms, scatter plots
Advantages:	Objective, conducted in actual setting, see behavior firsthand, may be endpoint
Disadvantages:	Complexity, inability to identify subtle or intermittent variables, time-consuming, potential masking by irrelevant events, may not be endpoint
Functional Analyses: Quantitative direct observation of behavior under preselected and controlled conditions	
Examples:	Alternating treatments designs, other designs
Advantages:	Objective, high degree of control over behavior, high reliability and validity, endpoint
Disadvantages:	Complexity, potential insensitivity to high idiosyncratic events, prompting unwanted behavior to occur, potential risk of establishing new behavioral function

Indirect Assessments

Indirect assessments involve gaining information from sources other than a first-hand analysis of the environmental events. These assessments can involve interviewing those who work directly with the student. They are usually "subjective verbal reports of the behavior under naturalistic conditions," in other words, reports concerning when the behavior occurs and what the antecedents and consequences of the behavior are (Iwata, Vollmer, & Zarcone, 1990, p. 305). Examples of methods used to gain this information are interviews, checklists, and rating scales. These assessments have advantages over other forms of assessments in that they are efficient, are easy to use, and provide a good starting point. The difficulties with indirect assessments are that their reliability and validity are questionable. If possible, it is advisable to supplement indirect assessment with other forms of assessment prior to developing a behavior support plan. Following is a description of the types of indirect assessments.

Interviews. Interview assessments are perhaps the most widely used form of FBAs. **Interview assessments** seek to determine the source of reinforcement for a behavior by asking people in the student's life what they think the likely function of the challenging behavior is. There are several types of interview assessments. Table 4.2 summarizes the information found in many interview assessments. This information can be separated into five categories: behaviors, setting events, antecedents, consequences, and interventions (O'Neill et al., 1997).

Table 4.2 Information Contained in Many Functional Behavior Assessment Interviews

Behaviors

1. Topography, frequency, duration, intensity
2. Response chains: behaviors that occur together

Setting Events

3. Medications, medical or physical conditions, sleep patterns, eating routines
4. Schedule of activities: predictability, choices, staffing patterns, other students or people present, noise levels

Antecedents

5. Day of the week, time, setting, people present, activity, instructions

Consequences

6. Positive and negative reinforcers

Interventions

7. Efficiency of the behavior: effort, reinforcement schedule, immediacy of the reinforcer
8. Functional alternatives and methods of communication in student's repertoire (motoric, verbal responses, expressive or receptive language skills)
9. Methods currently used to avoid problem behaviors
10. Potential reinforcers for a person's behavior: tangible, social, activity, edible
11. Past attempts to control student behavior: targeted behaviors, past programs, length of programs, effects of programs

Caregivers such as teachers, parents, and instructional aides are not the only individuals who can be interviewed. The students themselves can be interviewed, although they are often left out of the assessment process. Nevertheless, many times, students can provide information that is valuable in leading to a hypothesis concerning the function of their challenging behavior. O'Neill et al. (1997) developed a student-guided interview form. The information contained in such an interview is shown in Table 4.3. A critical part of the student-guided interview is targeting the behavior that got the student into trouble. Having students explain exactly what they did that resulted in the teacher's response is critical. Second, setting events should be considered with the students. Questions such as these could be asked: "How did you feel before you did that?" or "Were you in a bad mood at the time and why?" In addition, the immediate antecedents to the challenging behavior should be considered; the interviewer could ask questions such as "What

Table 4.3 Information to Be Included in a Student-Guided Functional Behavior Assessment Interview

Behaviors

1. The behaviors that got him or her into trouble at school and how intensely the behaviors occur (rated on an intensity scale)

Setting Events

2. Important events, places, or activities that are associated with the behavior (e.g., lack of sleep, illness, physical pain, hunger, trouble at home, noise or distractions, class or activities)

Antecedents

3. His or her subjects and activities and his or her teachers each class period
4. The class periods or times of day when the behaviors occur
5. Each situation that makes the behavior occur (e.g., class demands that are too hard, boring, unclear, long; teacher reprimands; peer teaching; or encouragement)

Consequences

6. Staff and student reactions when he or she misbehaves

Interventions

7. What he or she thinks would improve the situation

occurred just before you did the unwanted behavior?" or "What subject were you working on?" or "Who was around you at the time?" The consequences should also be probed through asking, "What happened when you did the unwanted behavior?" or "How did the teacher or other students react to what you did?" Finally, getting students' opinions on what they think could improve the situation can be important. For example, if the students indicate they did not think that the teacher respected them, additional probing into what the teacher did to result in that opinion could be done. Teachers many times do what they have always done in the classroom with students; students, however, may misinterpret an instruction presented in some manner as an indication of a lack of respect, for example. Simple changes in the manner in which instructions are presented could help improve students' behavior in the classroom. Gaining information on their views can be important. In addition, interviewing the students can also show them their input is valued, which could result in the students being more likely to "buy into" the resulting behavior management program.

Nelson, Roberts, and Smith (1998) developed the user-friendly interview or self-report form shown in Figure 4.3. As can be seen, the information requested on the form attempts to determine the setting events, antecedents, behaviors, and consequences associated with the challenging behavior.

Figure 4.3 Interview or Self-Report Form

INTERVIEW/SELF-REPORT FORM

Student Ellen Respondent Ms. Brown (teacher) Date 11/18/__

I. Problem Definition

1. Describe the student's target behavior(s)—primary problem behavior(s)—in objective terms.
   Ellen Shouts profanities.

II. Events and Situations Related to the Occurrence and Nonoccurrence of the Target Behavior(s)

2. In what situations does/do the target behavior(s) occur?

Location	*Time*	*Person(s)*	*Instructional Context*
☑ In Class	❍ Arrival to school	☑ Teacher(s)	❍ Entire group
❍ Hallways	☑ Morning	❍ Specialist(s)	❍ Small group
❍ Cafeteria	❍ Lunch	❍ Support staff	☑ Individual
❍ Special classes	☑ Afternoon	❍ Bus driver	❍ Transition
❍ Bus	❍ Recess/break	❍ Peer(s)	❍ Other
❍ Other _____	❍ Other _____	❍ Other _____	❍ Other _____

   Comments: Occurs in class when given an assignment to work on independently.

3. In what situations are the student's behaviors most appropriate?

Location	*Time*	*Person(s)*	*Instructional Context*
❍ In class	☑ Arrival to school	❍ Teacher(s)	☑ Entire group
☑ Hallways	❍ Morning	☑ Specialist(s)	☑ Small group
☑ Cafeteria	☑ Lunch	☑ Support staff	❍ Individual
☑ Special classes	❍ Afternoon	☑ Bus driver	☑ Transition
☑ Bus	☑ Recess/break	☑ Peer(s)	❍ Other _____
❍ Other _____	❍ Other _____	❍ Other _____	

   Comments: Does not occur during group instruction or nonacademic activities.

4. Are there any other internal and external events that influence the target behavior(s)?

Internal Events	*External Events*
❍ Medication_____	❍ Conflict at home_____
❍ Physical health_____	❍ Illegal drug use_____
☑ Academic skills Occurs more in math class	❍ Negative peer influence (gangs, etc.)_____
❍ Other _____	☑ Other When asked to work on an assignment.

   Comments: _____

III. Events That Occur Prior to (Antecedents) and After (Consequences) the Target Behavior(s)

5. What typically happens prior to the student exhibiting the target behavior(s)?

❍ Low levels of adult attention	☑ Presentation of activity or task	❍ Under varied conditions
❍ Low levels of peer attention	❍ Social interaction with adult	❍ Other_____
❍ Unavailability of object/activity	❍ Social interaction with peers	

   Comments: I ask her to work on an assignment independently.

6. What typically happens after the student exhibits the target behavior(s)?

❍ Start-up request	❍ Reprimand	❍ Ultimatum	❍ Time out
❍ Ignore	❍ Response cost	❍ Office referral	☑ Other Redirect

   Comments: I redirect her and/or work with her on the assignment.

SOURCE: From J. R. Nelson, M. L. Roberts, and D. J. Smith, *Conducting Functional Behavioral Assessments in School Settings*. Copyright © 1998 by Sopris West. Reprinted with permission from Sopris West Educational Services, Longmont, CO. 800-547-6747. (Packs of forms are available for purchase from Sopris West.)

Checklists. Checklists can also be used in an indirect assessment. In **checklists**, caregivers such as parents or teachers check off possible antecedents and consequences that the students might be exposed to when specific behaviors occur. Several checklists are available, including one described by Rolider and Van Houten (1993). This checklist was developed for parents or other mediators to determine the precursors of problem behaviors of individuals with developmental disabilities. Checklists should contain as many antecedents and consequences as possible. Antecedents could include whether demands or requests were made of the students and whether students were sitting alone, interacting with others, engaging in academic tasks, or interacting with adults. Consequences could include removing students from class, providing students with attention, ignoring students, and administering possibly aversive stimuli such as reprimands.

Rating Scales. **Rating scales** are similar to checklists except that teachers or parents can provide a level of likelihood that an antecedent or consequence would occur before or after the target behavior. As with checklists, several rating scales are available. Perhaps one of the better-known rating scales is the **Motivation Assessment Scale (MAS)** by Durand and Crimmins (1987). This 16-item rating scale requires a specific description of the challenging behaviors and a description of the settings in which they occur. The questions are separated into four categories of function: sensory, escape, attention, and tangible. Examples of questions in each category include the following: "Would the behavior occur continuously, over and over, if this person were left alone for long periods of time, such as several hours?" (sensory); "Does the behavior occur when any request is made of this person?" (escape); "Does the behavior occur whenever you stop attending to this person?" (attention); and "Does this behavior stop occurring shortly after you give this person the toy, food, or activity he or she has requested?" (tangible). The likelihood of occurrence of each of these situations is rated on a Likert-type scale from 0 (*never*) to 6 (*always*). The average rating per category is calculated, and a relative ranking is determined based on each average score.

The **Problem Behavior Questionnaire** (Lewis, Scott, & Sugai, 1994) is a 15-item rating scale in which the frequency with which an event is likely to be seen is rated. The range of the rating scale is "never" to "90% of the time." Examples of functions of behavior and correlated items include the following: "When the problem behavior occurs, do peers verbally respond to or laugh at the student?" (access to peer attention); "Does the problem behavior occur to get your attention?" (access to teacher attention); "If the student engages in the problem behavior, do peers stop interacting with the student?" (escape/avoidance of peer attention); "Will the student stop the problem behavior if you stop making requests or end an academic activity?" (escape/avoidance of teacher attention); and "Is the problem behavior more likely to occur following unscheduled events or disruptions in classroom routines?" (setting events).

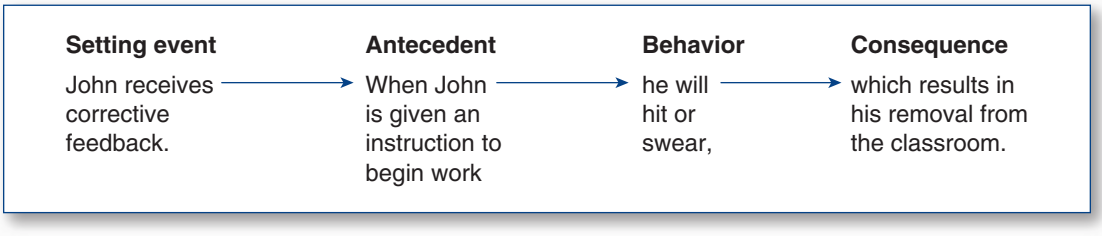
The **Functional Analysis Screening Tool (FAST)** is an 18-item rating scale (Iwata & DeLeon, 1996). It is recommended that FAST be administered to several individuals who interact with the student frequently. An indication of "yes" or "no" is used to determine if an item statement accurately describes the student's unwanted behavior. Examples of the maintaining variables and correlated items include the following: "When the behavior

occurs, do you usually try to calm the person down or distract the person with preferred activities such as leisure items or snacks?" (social reinforcement); "When the behavior occurs, do you usually give the person a 'break' from ongoing tasks?" (negative reinforcement); "Does the behavior occur at high rates regardless of what is going on around the person?" (automatic reinforcement, sensory stimulation); and "Does the behavior occur more often when the person is sick?" (automatic reinforcement, pain attenuation).

Summarizing Data. Once an indirect assessment has been conducted, the data must be summarized in some form. It is important to look for patterns in the data. Teachers should ask, "Was a particular antecedent (e.g., academic instruction) usually present when the behavior (e.g., swearing) occurred, usually resulting in a particular consequence (e.g., being removed from the group)?" Setting events should also be considered. For example, whenever the student comes to school sleepy, does he usually display a higher instance of the unwanted behavior? Also, teachers should look to see if different types of contexts produce similar responses from the student. For example, providing the student an instruction to begin her math assignment may occasion the same response from the student as requiring her to clean up a work area. Although these two events (i.e., academic requirement and cleanliness requirement) are seemingly unrelated, they nonetheless result in the same unwanted behavior. Additionally, behaviors that seem unrelated (e.g., aggression to peers, noncompliance with teacher instructions) may produce similar consequences (e.g., attention from peers). So contexts and behaviors that may seem unrelated may be functionally equivalent (i.e., produce the same consequences for the student). This information will be critical in terms of developing effective behavior support plans.

Once antecedents, behaviors, and consequences have been identified, summary statements can be made. Figure 4.4 shows such a summary statement. Essentially, the information is placed into a four-term or three-term contingency arrangement. As shown in the figure, the setting event is corrective feedback on an assignment, which results in a high probability of hitting or swearing (behavior) when the teacher provides instruction to begin work on an academic task (antecedent). The hitting or swearing (behavior) then results in being removed from the room (consequence). Now there is a possible sequence of events. This possible sequence gives information on the possible functions of the challenging behavior. The setting event (corrective feedback)

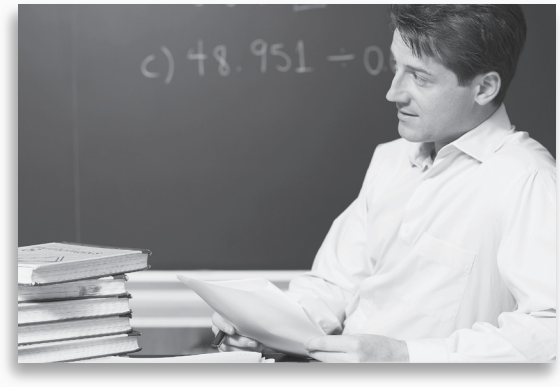
Figure 4.4 Summary Statement for a Behavioral Episode



increases the probability of challenging behavior during instruction (when he is told to begin work), and this produces a negatively reinforcing consequence (removal from the class). In the example just provided, the function of the behavior may be escape or avoidance of an academic task. This information is then used in the next step in the assessment process—descriptive analyses.

Descriptive Analyses

Descriptive analyses involve the direct observation of the student in the natural environment where the challenging behavior is most likely to occur. Descriptive analyses can take several forms, such as A-B-C analyses, observation forms, and scatter plots. The main advantage of descriptive analyses is they are more objective than indirect assessments because they involve a direct assessment or observation of the unwanted and wanted behaviors (Sigafoos et al., 2003).



Teachers may need to take observational data of student behavior to determine why a behavior is occurring and what to do about it.

A-B-C Analysis. Figure 4.5 shows an A-B-C form. At first glance, an A-B-C analysis seems to be simple. A-B-C analyses, however, can be quite complex to conduct. Essentially, an **A-B-C analysis** involves an observer (e.g., teacher, student teacher, parent, behavior specialist, school psychologist) observing the student during typical activities. The observations should occur during school activities when the behavior is most likely to happen. The length of the observations depends on several factors, such as the frequency of the target behaviors seen and the amount of resources the school has to conduct the observations. Such observations should be conducted on two or three occasions to get a comprehensive picture of the student's behavior.

When conducting the observations, a teacher should write a narrative of events occurring just prior to (antecedents) and just after (consequences) the targeted behaviors. A-B-C analyses are similar to conducting an observation study in qualitative research. Their purpose is to aid in the development of hypothesis statements about the possible functions of the unwanted behavior. The narrative should include episodes not only of the targeted, unwanted behaviors but also of the wanted behaviors. Essentially, all interactions with the student should be documented. For this narrative, the observer should develop a system of abbreviations and summaries to keep pace with the behavioral events. Narrative recordings take experience and practice so that all necessary events can be reported. These narrative events should occur over a minimum period of three days. We recommend the observations occur over a period of five to seven school days.

Figure 4.5 A-B-C Analysis Form

Antecedent	Behavior	Consequence

Antecedent: What conditions are present just before the behavior occurs.

Behavior: The student's response (what he or she does).

Consequence: What occurs immediately after the student's behavior.

Once the observations are completed, the narrative should be reviewed. The critical aspect of any functional assessment, as noted earlier, is finding patterns in the data. Therefore, similar antecedents present before unwanted as well as wanted behaviors should be identified. For example, most of the time when the teacher asks the student to perform an academic task, the student swears. When the teacher requests that the student do a nonacademic task, such as line up at the door, however, the student complies. Similar consequences should also be categorized together. For instance, most of the time when the student is on task, the teacher does not attend to her. But when she misbehaves the teacher attends to her (giving attention in the form of reprimands). So misbehavior may function to get attention from the teacher.

Nelson, Roberts, and Smith (1998) present an alternative observation form. As shown in Figure 4.6, the form is a modification of the one in Figure 4.5. This modified form prompts for summary statements to be made based on information gathered from the form, which helps teachers to summarize the information of a descriptive assessment.

Observation Forms. There are a variety of observation forms available for conducting descriptive analyses. **Observation forms** structure the observations into a checklist format with operational definitions of each of the target behaviors similar to the narrative recording method. One of the more popular observation forms was developed by O'Neill et al. (1997). Figure 4.7 shows an example of such a form. As shown in the figure, the behaviors of concern are written in the provided columns. There should be an operational definition of each behavior so that the person conducting the observations is sure of what to examine. The predictors are provided. In addition, information on setting events and other antecedents, such as the particular people working with the student or the individuals with whom the student is interacting, can be written in the provided columns. Next, the perceived functions of the behaviors are provided. Notice that there are two major categories provided: get/obtain (positive reinforcement) and escape/avoid (negative reinforcement). Within the get/obtain category are attention, desired item/activity, and self-stimulation. Within the escape/avoidance category are demand/request, activity, and person. The actual consequences delivered based on the behaviors should be provided as well. Finally, the time of observation should be written on the left side of the form. O'Neill et al. (1997) recommend that the observations be taken for a minimum of three days. As with A-B-C analysis, observations should be scheduled when the unwanted behavior is most likely to occur; the observations should be long enough to get a valid representation of the student's interaction with his or her environment.

Figure 4.8 shows a form filled out for John. There were two behaviors of concern—hitting and swearing. There were 11 episodes of these behaviors on the day of the observation. The behaviors were not allocated to one particular teacher or time period. The behaviors occurred either during times when something was asked of John (a demand or request) or during difficult tasks. The consequence was usually a time-out. The perceived function was to escape or avoid demands or activities. Thus, time-out seemed to be functioning as a negative reinforcer. The summary statement for John is that when something is demanded or requested of him or when he is given activities to complete, he will hit or swear or do both to escape the task or activity by being sent to time-out.

Figure 4.6 Observation and Analysis Form

OBSERVATION AND ANALYSIS FORM

Student Ellen Observer Ms. Brown (teacher) Date 11/18/

Target behavior(s) observed Profanities

I. Direct Observations

Start: 9:30 **End:** 10:30	**Setting:** Classroom	**Activity:** Math
Antecedent: Get Started	**Behavior:** Profanity	**Consequence:** Redirected
Comments:		

Start: 9:30 **End:** 10:30	**Setting:** Classroom	**Activity:** Math
Antecedent: Get to work	**Behavior:** Profanity	**Consequence:** Sat with her
Comments:		

Start: 9:30 **End:** 10:30	**Setting:** Classroom	**Activity:** Math
Antecedent: Work on your math	**Behavior:** Profanity	**Consequence:** Redirected helped with math
Comments:		

II. Summary

1. Identify the settings, activities, and consequences that appear to be related to the occurrence and nonoccurrence of the target behavior(s).
   Ellen shouts profanities when I give her a direction to start her math assignment.
2. Identify the events that occur prior to and after the target behavior(s).
   A direction occurs prior to the behavior at which time I redirect her and/or help her with her assignment.
3. Are they consistent with other information collected? ☑ Consistent ❍ Inconsistent

   Comments:

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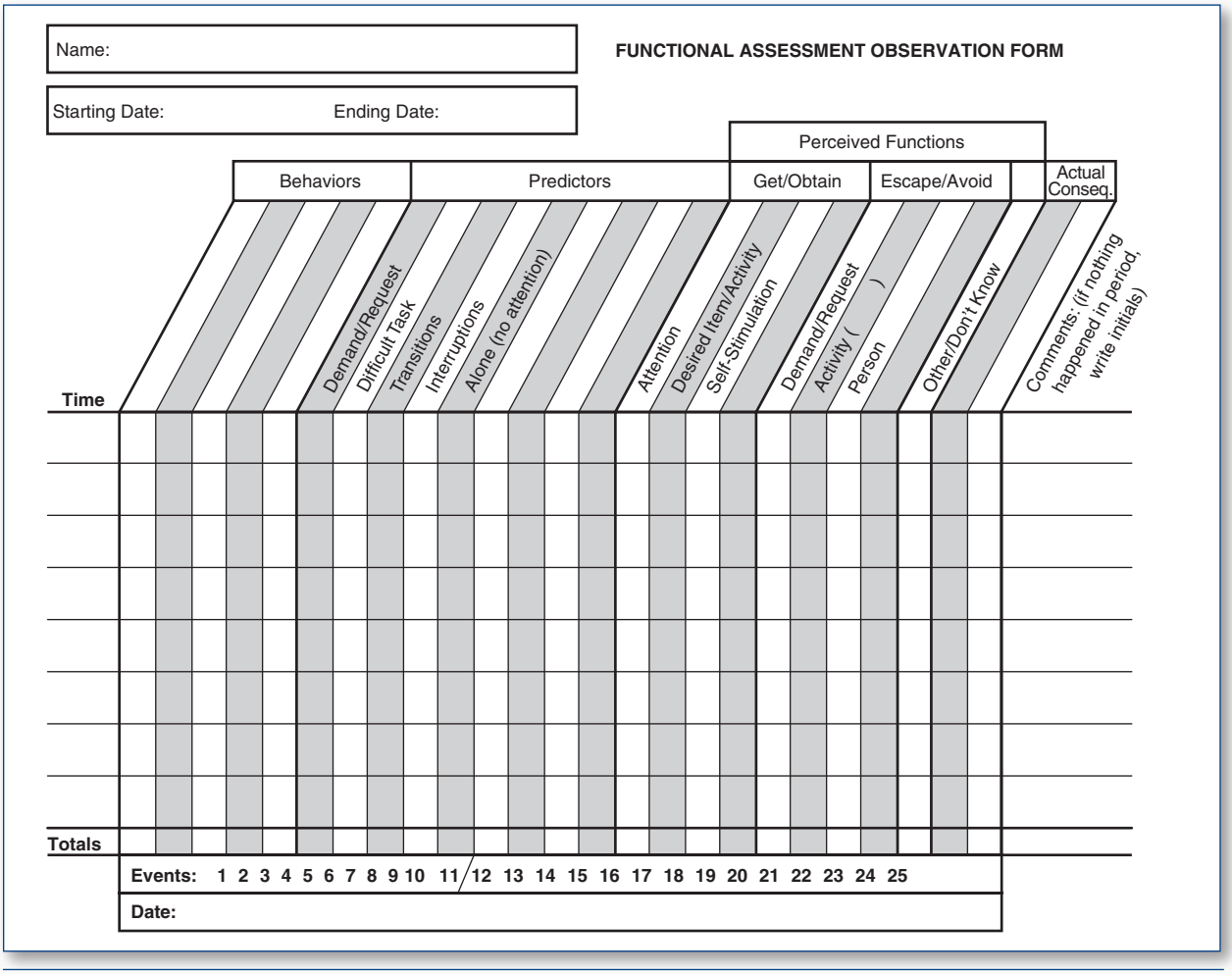
Figure 4.7 Functional Assessment Observation Form



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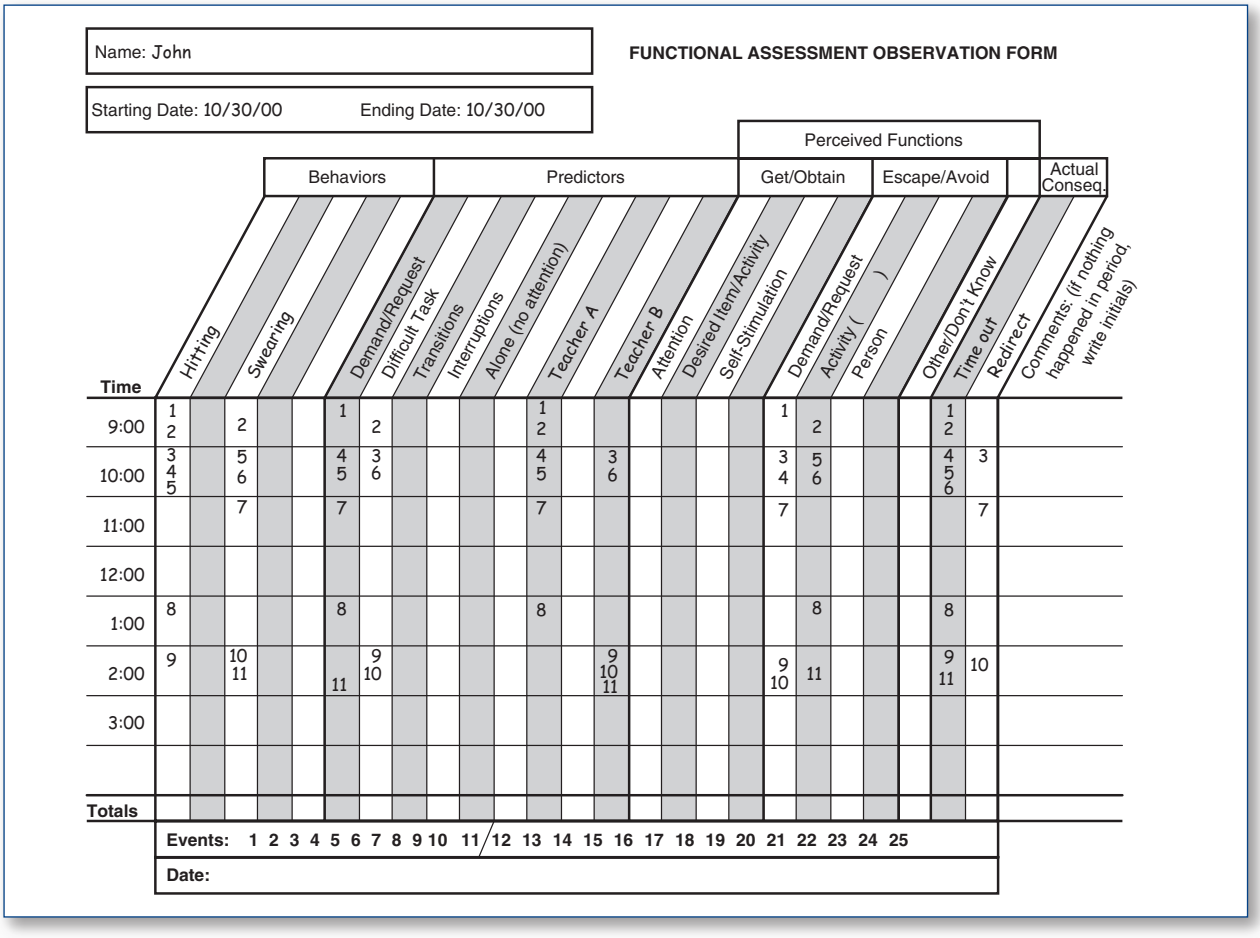
Scatter Plots. Another form of assessment is the scatter plot devised by Touchette, MacDonald, and Langer (1985). The **scatter plot** enables observers to monitor targeted behaviors over an extended period of time. Figure 4.9 shows a scatter plot. As seen in the figure, the time of day is provided on the vertical axis and successive days are listed on the horizontal axis. The time of day can be divided into hour, half-hour, quarter-hour, or smaller increments, depending on what the observer wants to represent. The coding system involves three possibilities. An open box refers to a lack of target behavior. A slash through the box represents a low level of the behavior. A filled-in box represents a high level of the behavior. Whether a behavior is at a minor level or a major level is set somewhat arbitrarily. For example, a slash could represent the behavior occurring fewer than five times during the interval. The filled-in box could represent the behavior

Figure 4.8 Functional Assessment Observation Form With Data



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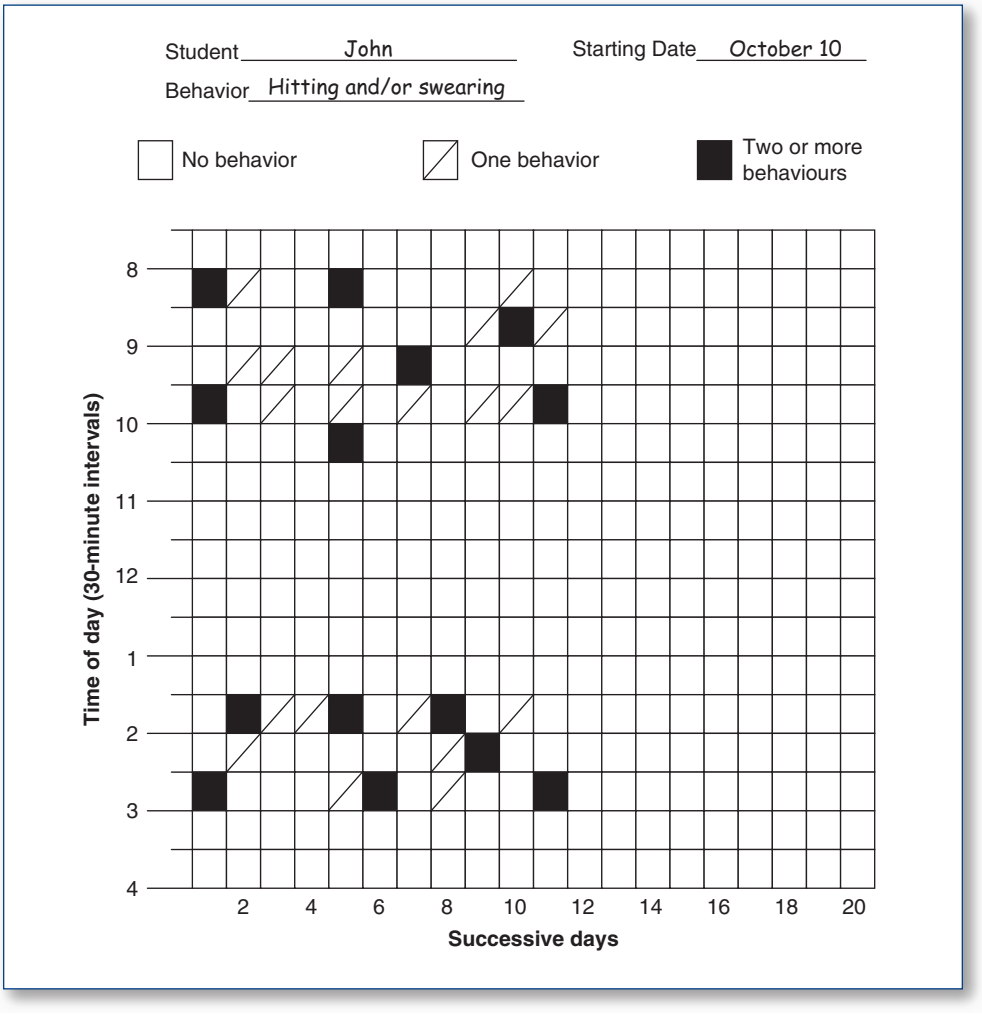
occurring five or more times. The grouping of the slashed or filled-in boxes is an indication of when the behaviors are emitted throughout some time span. (Numbers can be placed in the boxes to give a more accurate representation of the frequency of the unwanted behaviors at various points in time.) A difficulty with the scatter plot is that environmental conditions that are related to behaviors on a time-cyclical basis cannot be determined (Axelrod, 1987b). Also, the scatter plot does not determine the potential functional relationships of the unwanted behaviors, but it does lead the teacher to narrow down when an unwanted behavior is likely to occur so that a finer analysis, such as an A-B-C analysis, can be conducted at those times. Additionally, these results could also be used to supplement the results from interviews or other checklists.

Figure 4.9 Scatter Plot With Data



For the example presented in Figure 4.9, it can be seen that the behavior tends to occur in the morning and afternoon. There is little problem behavior after 10:30 AM and before 1:30 PM. Therefore, a teacher would want to determine what is occurring, who is with John, and the types of interactions going on during those times. For example, it is possible that academic tasks that are more aversive to John occur during the times of the outbursts. It is possible a particular person, such as an instructional aide, is working with John during those times. Another possibility is that John is engaged in individualized seatwork at those times when the behavior is likely to occur and in cooperative learning groups when the behavior is least likely to occur. The time could also be a factor in and of itself. The outbursts tend to occur shortly after the beginning of school and about 1 to 1.5 hours before the end of school. Some setting events could be present that make John more likely to misbehave, such as getting into fights before and after school. Therefore, the scatter plot can function to help the teacher

narrow down the possibilities, and it also allows the teacher to focus on a more defined range of times during which the unwanted behavior occurs so that a more fine-grained analysis can be conducted then. An A-B-C analysis could be conducted before 10:30 AM and after 1:30 PM to get an idea of the function of the unwanted behaviors John is exhibiting.

Summarizing Data. Once the descriptive analyses have been conducted, the data will need to be summarized again. This summarization is similar in form to the one completed for the indirect assessment. The summary of descriptive analysis results should be compared with indirect assessment results to determine if the two are consistent. Frequently, they will be. At times, however, the two summaries will differ in some manner. The summary presented in Figure 4.4 indicates the setting event was receiving corrective feedback. Direct observation, however, found corrective feedback was not a reliable predictor of the problem behavior; rather, the manner in which feedback was provided to the student was a critical setting event. During the indirect assessment, the teacher may have identified feedback as being a setting event, but the teacher did not take into consideration that the form of that feedback may have had an effect on the behavior. Suppose during the observation it was shown that, when the teacher provided feedback by first discussing what the student did correctly (e.g., "I see that you put a lot of effort into this assignment") and then provided an effective error correction sequence (e.g., "You were on the right track in figuring out the math problems until you had to borrow. Watch how I borrow in this math problem. Let's try the next problem together. Great. Now try this one on your own"), the student was not likely to misbehave. However, when an ineffective error correction sequence was used (e.g., "You did not borrow the correct way. You knew this yesterday. Let's try again"), the behavior was much more likely to be seen when a new instruction was presented. Thus, a revised summary statement based on the descriptive analysis is presented in Figure 4.10.

Nelson et al. (1998) provide two forms that will help in the development of summary statements and, ultimately, in the development of behavior support plans (see Figure 4.11 and Figure 4.12).

Figure 4.10 Summary Statement for a Behavioral Episode After Descriptive Information Is Gathered

Setting event	Antecedent	Behavior	Consequence
John receives corrective feedback in a negative fashion. →	When John is given an instruction to begin work →	he will hit or swear, →	which results in his removal from the classroom.
John receives corrective feedback via a positive error correction procedure. →	When John is given an instruction to begin work →	he will work, →	which results in praise from the teacher.

Figure 4.11 Temporal Analysis and Ranking Form

TEMPORAL ANALYSIS AND RANKING FORM

Student Ellen Rater Ms. Brown (teacher) Week of 11/18/___

Dimension being rated: ⊘ Frequency ❍ Duration ❍ Intensity ❍ Other_____

Target behavior(s) observed Profanities

Directions: Rank the student's target behavior(s) for the designated time period.

All scales rated from 1(low) to 10 (high)

	TIME (Increments should align with distinct changes in settings/activities.)											
DAY	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30				
Mon		|||			|							
Tues		|||				|						
Wed		||||		|								
Thur		|||					|					
Fri		||										

1. In what situation(s) are the rankings of the target behavior(s) highest?

Location	***Time***	***Person(s)***	***Instructional Context***
⊘ In class	❍ Arrival to school	⊘ Teacher(s)	❍ Entire group
❍ Hallways	⊘ Morning	❍ Specialist(s)	❍ Small group
❍ Cafeteria	❍ Lunch	❍ Support staff	⊘ Individual
❍ Special classes	❍ Afternoon	❍ Bus driver	❍ Transition
❍ Bus	❍ Recess/break	❍ Peer(s)	❍ Other
❍ Other	❍ Other	❍ Other	

Comments: Profanities occur during math class and are directed toward me.

2. In what situations are the rankings of the target behaviors lowest?

Location	***Time***	***Person(s)***	***Instructional Context***
⊘ In class	⊘ Arrival to school	❍ Teacher(s)	⊘ Entire group
⊘ Hallways	❍ Morning	⊘ Specialist(s)	❍ Small group
⊘ Cafeteria	⊘ Lunch	⊘ Support staff	⊘ Individual
⊘ Special classes	❍ Afternoon	⊘ Bus driver	⊘ Transition
⊘ Bus	⊘ Recess/break	⊘ Peer(s)	❍ Other
❍ Other	❍ Other	❍ Other	

Comments: Behavior doesn't occur during group instruction/nonacademic tasks or with others.

3. Are they consistent with other information collected? ⊘ Consistent ❍ Inconsistent

Comments: _____

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Figure 4.12 Summary Analysis Form

SUMMARY ANALYSIS FORM

Student Ellen Date 11/25/

Staff Present Ms. Brown (teacher)

I. Data Collection Procedures

1. Procedures used to collect information for the functional behavioral assessment.
   ☑ Interview/Self-Report ☑ Observation ☑ Temporal Analysis/Ranking ☑ Other reviewed math performance

II. Events and Situations Related to the Occurrence and Nonoccurrence of the Target Behavior(s)

2. What key events appear to be related to the occurrence of the target behavior(s)?
   Direction to complete her math assignments independently

3. What key events appear to be related to the nonoccurrence of the target behavior(s)?
   Not giving a direction to work on her math assignment
   Other academic tasks or instruction aside from math
   Nonacademic tasks

4. Are there any other internal and external events that influence the target behavior(s)?
   A direction—external
   Poor math skills—internal

III. Events That Occur Prior to and After the Target Behavior(s)

5. What typically happens prior to the student exhibiting the target behavior(s)?
   A direction

6. What typically happens after the student exhibiting the target behavior(s)?
   Redirected and/or I work with her on the assignment.

IV. Potential Function of Target Behavior(s)

7. What is the potential function of the target behavior(s)?

❍ ***Access***	☑ ***Escape Avoidance***	❍ ***Autonomic Reinf.***	❍ ***Multiple***
❍ Object/activity	☑ Activity	❍ Comment:	❍ Access
❍ Adult attention	❍ Adult engagement		❍ Escape/avoidance
❍ Peer attention	❍ Peer engagement		❍ Autonomic reinf.

Comments: Uses profanity to get attention.

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Functional Analyses

Functional analyses are another type of FBA. Functional analyses allow for an experimental demonstration of the function of a target behavior. **Functional analyses** are defined as "quantitative direct observations of behavior under preselected and controlled conditions" (Iwata et al., 1990, p. 305). In essence, the student is assessed in a number of predetermined contexts (e.g., academic demands, low attention). If challenging behavior occurs more often in one context than in others, teachers can infer that the consequences in that context are maintaining behavior.

These types of assessments provide a high degree of control over the behavior and are considered to have high **reliability** (i.e., consistency of results over time) and **internal validity** (i.e., the degree to which the independent variable made the difference rather than a change being due to something else). Consequently, they can provide the necessary information required to determine the function of a behavior. However, the **external validity** (i.e., the generalizability) of these assessments is questionable. While there is a large body of research on these functional analysis techniques, there is limited research demonstrating the social validity and veracity of classroom-based behavior support plans derived from such assessments. Of course, this concern could be expressed for most FBA techniques discussed in this chapter.

It can be helpful to run brief functional analyses in situations where other FBAs have not produced a clear picture of what is maintaining a student's challenging behavior. A functional analysis can be conducted by repeatedly presenting a variety of social contexts. Teachers could use a research design such as the alternating treatments design or an A-B-A-B design (discussed in Chapter 3) to control for the systematic presentation and removal of the different social contexts. For example, the teacher might present 10 minutes of a demanding academic activity. This demand could be followed by 10 minutes in which no demands are placed on the student and he receives no attention from the teacher. These social conditions could be repeated over a number of days. If challenging behavior occurs in the demand condition, then we can infer that the student engages in this behavior to escape from academic activities. If behavior occurs in the social attention condition, then we can say that the behavior probably occurs to get attention from others.

These functional analyses have typically been conducted in clinical settings with individuals who have developmental disabilities and very severe challenging behaviors. So the ultimate value of functional analysis protocols in school contexts and with students who do not have developmental disabilities is still up for debate. If a functional analysis is suggested for a student, then it should be conducted or, at the very least, supervised by a professional who has been trained to run such a protocol. This person will probably be a behavior specialist or school psychologist.

When to Use Each Type of Assessment

There are several types of FBAs. The type used depends to a large extent on the form of assessment recommended or required within various school districts or learned in behavior management classes or inservice workshops. No matter what type of FBA is

used, the type of data needed to create a behavior support plan must be considered. Table 4.4 shows a general decision-making process for conducting FBAs that lead to effective behavior support plans. As shown in the table, the collection of information through an indirect assessment method is the first activity. The first step is to identify and define the target behavior. The second step involves identifying the events or circumstances associated with the problem behavior. The final step involves the determination of the possible functions of the problem behavior.

Once the indirect assessment is finished, a descriptive method should be conducted. It is not recommended that a behavior support plan be developed based solely on the information obtained through an indirect method of assessment. The general recommendation for conducting a descriptive method of assessment is to observe for at least three days (O'Neill et al., 1997). The target behavior observed should be compared with the definition of the behavior obtained during the indirect assessment. For example, aggressive behavior may have been defined as any hitting, scratching, or kicking of another individual. In some cases, the behavior observed will match the definition developed earlier (e.g., aggressive episodes will involve the behaviors described in the original definition). At other times, the definition may need to be revised to reflect the behavior observed (e.g., spitting was also observed and added to the definition). Finally, new behaviors not identified in the indirect assessment may need to be defined and considered (e.g., oppositional behavior also occurred throughout the day). The descriptive analysis should either verify the events that were thought to be associated with the

Table 4.4 Decision-Making Process for Conducting Functional Behavior Assessments

1. Collect information through an indirect method.
   - Identify and define the target behavior.
   - Identify events and circumstances associated with the problem.
   - Determine the possible functions of the problem behavior.
2. Collect information through a descriptive method for at least two to three days.
   - Identify and define the target behavior.
   - Identify events and circumstances associated with the problem behavior.
   - Determine the possible functions of the problem behavior.
   - Compare results with information obtained through an indirect method.
3. If behavior's function or functions are apparent, go to step 5. If functions are not apparent, collect additional descriptive information for three to five days.
4. If behavior's function or functions are apparent, go to step 5. If functions are not apparent, conduct a functional analysis.
5. Develop hypothesis statements about the behavior.
   - Determine the events and circumstances associated with the problem behavior.
   - Determine the likely function or functions of the behavior.

problem behavior (e.g., as the teacher reported, the behavior would usually occur when a demand was placed on the student) or result in a new event or circumstance being associated with the problem behavior (e.g., how the task was demanded was associated with the unwanted behavior or the student was more likely to misbehave when left alone than when asked to complete a task). The function of the problem behavior also needs to be verified. For example, the teacher may have indicated that the likely function was escaping a task. The function, however, might be shown to be different than the function hypothesized from the indirect assessment. Perhaps receiving attention rather than escaping a task is the function. The teacher could have indicated that there were no obvious consequences after the unwanted behavior occurred because she ignored the student, whereas the descriptive analysis could indicate that the other students were providing attention to the student after the unwanted behavior.

In many cases, the function of the behavior will be apparent after the descriptive analysis. If so, hypothesis statements about the behavior can be developed. These statements describe the events or circumstances associated with the problem behavior. Once these events or circumstances are determined, the likely function of the behavior can be stated.

If the function of the behavior is not apparent as a consequence of the descriptive analysis, this analysis should be extended for another three to five days. If the function of the behavior becomes apparent, hypothesis statements can be made. If the results of the descriptive analysis are inconclusive, however, a functional analysis should be conducted by a person qualified to conduct such analyses.

Some professionals in the field may feel that a functional analysis should be conducted even if a descriptive analysis provides enough information to develop a hypothesis statement. They may indicate that a functional analysis should be conducted to further validate the information received from the descriptive analysis. Another way to validate the information obtained through a descriptive analysis is to implement an intervention based on that information. Both approaches have merit. The difficulty with functional analyses, however, is that they require specialized training to implement. Teachers or other school personnel should not conduct functional analyses unless they have received training and supervision from a competent behavior analyst who has specific training in such analyses.

How Do We Develop a Behavior Support Plan?

Once the data from an FBA are gathered, a behavior support plan can be developed. If the behavior support plan does not flow from the FBA, however, the FBA was essentially a waste of time and resources. Thus, if developing a behavior support plan, school personnel must be committed to conducting an FBA and to using the data gathered appropriately.

When one builds a behavior support plan, several considerations must be made (O'Neill et al., 1997). First, the plan must indicate how those involved in the student's environment will change, not just how the student will change. If it is assumed that the environment influences unwanted behavior, others must be considered as part of the

environment. Therefore, teachers should not only consider how the student must make different "choices"; they must look to themselves and determine how they can change to bring about a student's positive behavior.

Second, the plan should be based on the data gathered from the FBA. Recall that an FBA assumes that behaviors serve a function for the student. In other words, there is something reinforcing the behavior. The purpose of an FBA is to determine the function of the behavior. If the function is determined, this information can be used to make meaningful changes in the student's environment, which, in turn, will result in improved behavior.

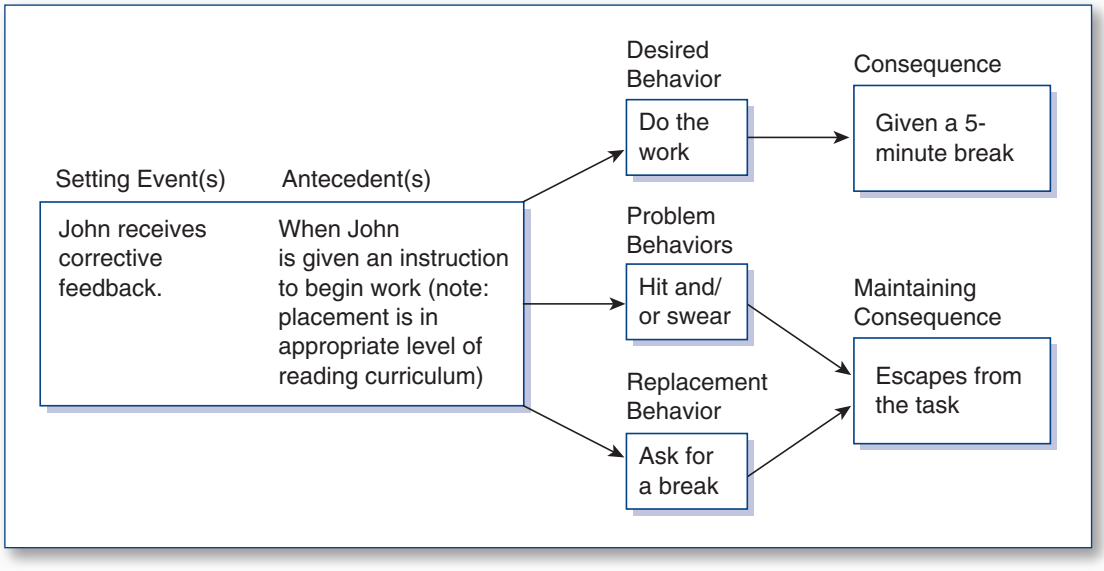
Third, the plan should be technically sound. In other words, the plan should be based on the principles and laws of human behavior (covered in Chapter 2). Also, the plan should include intervention procedures that have been shown to be effective in the research literature (covered in Chapters 5 and 6). There are three main areas of focus for a behavior support plan. First, we must teach the individual skills that will lessen the need to exhibit the unwanted behavior. For example, a child may, at first, grab an item from another person, and find that this grabbing is successful. Thus, the grabbing behavior becomes relevant to the child. If, however, the child learns to obtain the item by asking for it, grabbing the item becomes irrelevant. Second, we must make the problem behaviors inefficient. Many unwanted behaviors receive reinforcement fairly immediately and continuously. To make the behavior inefficient, we need to stop reinforcing it. In addition, many unwanted behaviors, such as tantrums, require a great deal of effort on the part of the student. If we are able to provide an alternative behavior that receives reinforcement more immediately and consistently and that takes less effort, the individual will display the wanted behavior instead of the unwanted behavior because the unwanted behavior becomes inefficient, especially in comparison to the alternative behavior. Third, we need to make the problem behaviors ineffective. We know that a behavior will continue to be exhibited if it is reinforced. We also know that if a behavior is not reinforced, it will cease to exist. Thus, our goal is to remove the source of reinforcement for a behavior so as to make the behavior ineffective in gaining reinforcement.

Finally, the behavior support plan should be a good fit with the values and skills of the people responsible for implementation. Behavior support plans can be difficult to implement correctly. If one is designed and the people responsible for its implementation do not agree with the plan or do not have the skills to implement it, it will fail. Therefore, before a behavior management plan is implemented, staff members or those responsible for the implementation of the plan should be encouraged to provide their input. If there are any concerns before the plan is implemented, it should be revised. It is far better to make changes before a plan is implemented than to attempt to overcome difficulties after a plan has been implemented.

Building the Behavior Support Plan

Our summary statement of the FBA for John in Figure 4.10 provides a description of the antecedents and consequences that are maintaining his challenging behavior. This summary statement is now elaborated in Figure 4.13 to aid in the development of a

Figure 4.13 Diagram to Be Used in Behavior Support Plans



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behavior support plan for John. The diagram in Figure 4.13 highlights seven issues that should be considered when building a behavior support plan. First, the setting event (if any) needs to be documented. As stated before, the setting event can be anything that changes the way an individual is predisposed to respond at any given point in time, such as being tired, getting into a fight, or being punished at home.

Second, what happens immediately prior to challenging behavior, or what is commonly known as *the antecedent,* must be documented. In John's case, a variety of instructions associated with beginning work serve as antecedents to challenging behavior, such as instructions to "sit down," "sit," "park it," or "relax." Similarly, several possible instructions to begin work on a variety of academic tasks can act as antecedents to challenging behavior: "Get out your workbook. Let's turn to page X." There is a general class of antecedents that prompt challenging behavior, and these can be called "instructions to begin work."

Once the antecedents have been determined, three behaviors or responses to them must be determined: desired behavior, problem behavior, and replacement behavior (the third, fourth, and fifth issues to be included in the behavior support plan). The desired behavior is what the teacher wants to see. It is the behavior that well-behaved students exhibit. In the example, the desired behavior is the performance of the task. The problem behavior is the behavior that needs to be curtailed. A single behavior may not be the problem, but several behaviors may be. If several behaviors are a problem and they receive the

same consequence or have the same function, the functional class should be documented by stating the behaviors in the class. In the example, there are two behaviors that seem to occur together or for the same reason: hitting and swearing. The replacement behavior, or the behavior that can be taught to replace the unwanted behavior, should also be determined. The replacement behavior in the example is asking for a break.

The sixth and seventh issues are concerned with how the teacher responds to the student's behaviors. It is important that the teacher not provide reinforcement for the challenging behavior. Equally, it is important that the teacher provide immediate reinforcement for the appropriate replacement behavior. So, if the student begins to act out, the teacher continues with the task. Once the student asks appropriately for a break, then a break is given immediately. In this situation, the appropriate behavior receives reinforcement (asking appropriately to escape the academic task) while the challenging behavior (acting out to escape from the task) is placed on extinction. Initially, the replacement behavior must be reinforced immediately and on a continuous reinforcement schedule (every time it occurs). We can see from Figure 4.13 that the new behavior achieves the same outcome as the unwanted behavior (i.e., the same reinforcer). Therefore, the appropriate behavior and the unwanted behavior are functionally equivalent (achieve the same outcome). During the intervention, the teacher may initially prompt the student to use the new behavior ("If you need a break, don't forget to ask for one."). Once all of these issues are addressed, a behavior support plan can be written.

Writing the Behavior Support Plan

Once the diagram has been developed, the behavior support plan can be written. As shown in Figure 4.14, the operational definitions of the target behaviors are provided. Next, the summary statements are documented with a diagram of the three possible behavior categories (i.e., desired behavior, target behavior, replacement behavior). The diagram in Figure 4.14 shows that asking for a break is the replacement behavior for swearing.

The general approach to solving the behavior problem is presented next. A strategy for changing the setting events (if any) to prevent the problem behavior is stated. If a negative method of correction makes the student more likely to hit or swear, change the way correction is provided. If the behavior occurs when the student seems tired, speaking with his or parents about getting him or her to bed earlier may be a strategy. The predictor strategies are stated and involve methods of preventing the unwanted behavior by changing the antecedents to the task. For example, a teacher may change the way instructions are given, from a question (e.g., "Could you begin your work?") to a statement (e.g., "Please begin your work"). Another critical aspect of predictor strategies is to diagnose why a task is aversive to a student in the case of an escape or avoidance-motivated behavior. The task may be too difficult or require the student to concentrate or to sit still for too long. If the task is too difficult, then modifying the curriculum to add instructional supports might be appropriate. If the task requires too much on-task time of the student, the appropriate solution could be to break the task into smaller units of time. If the problem is with attention seeking, the solution might be to provide more attention for appropriate behavior. Instructional strategies can also involve teaching the student alternative behaviors to access

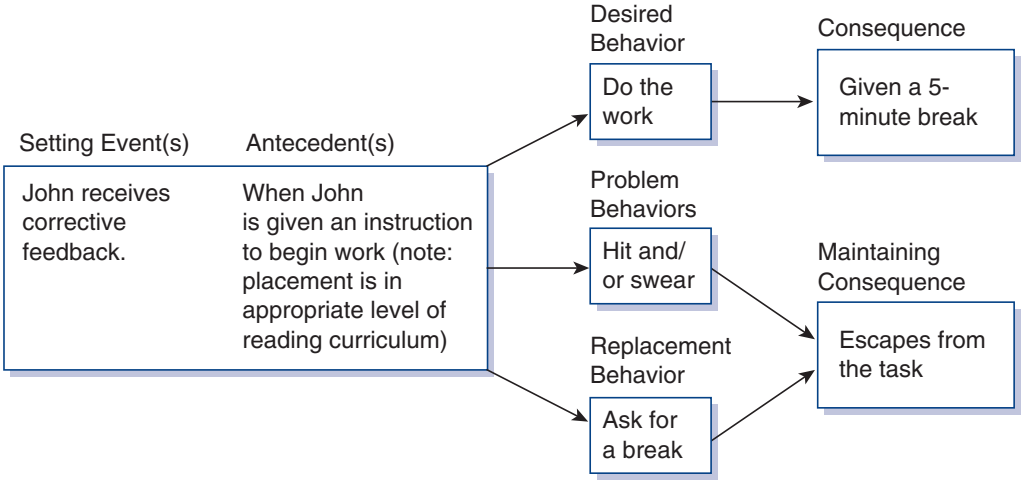
Figure 4.14 Behavior Support Plan for John

Problem Behavior

1. Hitting: Any contact with the hand to another person or object with the intent to harm.
2. Swearing: Stating verbally words commonly considered to be swear words (i.e., four-letter words).

Functional Assessment Summary Statement

When given instructions to begin working on a task after corrective feedback has been given, John will hit and/or swear. These behaviors are maintained by removing the task and sending John to time-out. Time-out allows John to escape or delay the task.



General Approach

Setting event strategies: When providing feedback, an effective error correction procedure will be used. This procedure will involve praising John for his effort, modeling the correct answer (e.g., "that word is father"), guiding him to the correct answer (e.g., "let's say the word together"), and having him provide the answer independently after a prompt (e.g., "What word is this?").

Predictor strategies: (a) Instruct John to complete his work versus asking him to do so.

(b) Although there is no indication that the work is too difficult for John, make sure to provide assignments that John can do independently (i.e., at his instructional level).

Teaching strategies: Conduct a 15-minute training session with John on how to request a break when he is feeling agitated (i.e., raise hand and ask for a break when called upon).

Consequence strategies: (a) When John begins to work on the assignment, the teacher will praise him for getting started. When John completes the work, he will be praised for the completed work and given a 5-minute break. (b) If John begins to become agitated, the teacher will remind him to ask for a break if he thinks he needs one. Minor behaviors will be ignored. If John's behavior (e.g., aggression) requires his removal, the teacher will provide a short booster training session on how to ask for a break immediately after John reenters the classroom. After the booster session, John will be instructed to complete the work he attempted to avoid.

Routines

Praise John when he begins working on his assignment and when he turns it in completed. Allow John to have a short 2-minute break when he asks for one in the prescribed fashion.

If John becomes agitated, prompt him to ask for a break. For more serious incidents such as aggression, send John to time-out and have him practice appropriate "asking for a break" behavior upon his reentry to the classroom. Make sure John returns to the work that he attempted to avoid.

Monitoring and Evaluation

The observation form will be used to monitor the frequency of John's hitting and swearing behaviors. The teacher will review the data each morning prior to the start of class and at the end of the week to determine if changes in the plan are needed. The plan will formally be reviewed with John and his parents at the end of 1 month after its implementation.

SOURCE: Adapted from R. E. O'Neill, R. H. Horner, R. W. Albin, J. R. Sprague, K. Storey, and J. S. Newton, *Functional Assessment and Program Development for Problem Behavior: A Practical Handbook*. Copyright © 1997 by Brooks/Cole. Used with permission.

the reinforcing consequences. For example, if a behavior is attention maintained, then the student should be prompted to gain attention using appropriate behaviors. The student could be prompted to use appropriate requests to escape from tasks, for example. Table 4.5 provides a guide for interventions based on the function of the behavior.

The routines are also presented in Figure 4.14. The routines should indicate the manner in which the work will be provided. For example, if the student is having difficulty completing an assignment, the method of breaking the assignment into smaller units should be specified. That could involve drawing a line one-third and two-thirds of the way through the assignment and informing the student that, when she reaches each line, a break may be taken. Also, if an unwanted behavior occurs, some appropriate response should be made by the classroom staff. The response may be simply ignoring the unwanted behavior or calling for assistance from the office. Whatever the routines are, they should be stated in specific terms so that all staff members understand what is to be done and when.

Finally, the effects of the behavior support plan on the targeted student behavior should be monitored. This monitoring should be completed as described in detail in Chapter 3. It is important to get a clear evaluation as to the effectiveness of the support plan. If the plan is not working, then aspects of the plan may need to be changed or the FBA may need to be conducted again.

Table 4.5 Guiding Principles for Functions for Target Behaviors

Function	Guiding Principle
Access • Object/activity • Attention (adult/peer)	• Reinforce and support the student when he or she is actively engaged with desirable objects or activities • Provide the student attention (reinforce) when he or she is exhibiting appropriate behaviors
Escape/avoidance • Activity • Social (adult/peer)	• Reinforce and support the student to meet the performance expectation • Reinforce and support the student when he or she is engaging in desirable and important social situations
Autonomic reinforcement	• Minimize or eliminate the effects of the intrinsic factor and reinforce the student when he or she exhibits appropriate behaviors
Multiple functions	• Use the guiding principles related to the particular functions in operation

Assessing the Fidelity of the Behavior Support Plan

It is critical to utilize procedures such as those described in this text when developing an effective behavior support plan. Further, educators should ensure that these plans are implemented accurately and consistently to facilitate treatment fidelity. Cook et al. (2010) described an analysis conducted by Etscheidt (2006) in which "52 published court decisions indicated that the first thing hearing officers look for when making a decision is whether the BIP was implemented as planned (i.e., treatment integrity)" (p. 11).

The *Behavior Support Plan–Quality Evaluation Scoring Guide (BSP-QE)* (Browning-Wright, Saren, & Mayer, 2003) can be used to evaluate and rate the quality of content in the behavior support plan. It is considered to be a technically adequate tool and is based on six key, evidence-based concepts including (a) behavior function, (b) situational specificity, (c) behavior change including environmental alteration and teaching strategies, (d) reinforcement, (e) reactive strategies, and (f) team coordination and communication (Cook et al., 2010). Twelve items are included and are rated on a 3-point Likert-like scale from 0 to 2, with a maximum score of 24 (Cook et al., 2010). This instrument was used in a survey of professionals evaluating the relationship among evidence-based quality behavior support plans, treatment integrity, and student outcomes:

> The findings from this research suggest that school staff should strive to develop BIPs that include critical evidence-based components. . . . [D]eveloping a BIP that is consistent with the research base should be viewed as a necessary but not sufficient condition to effective positive behavior change. Rather, school staff must diligently monitor and

ensure the integrity of its implementation. Ensuring the integrity of implementation is paramount because it represents the mechanism by which key evidence-based concepts are translated into actual practice. . . . [I]t also has merit in terms of providing the context for making valid and legally defensible decisions to modify, intensify, maintain, or discontinue a BIP. (Cook et al., 2010, p. 10)

Vignette Revisited — Developing a Behavior Support Plan

Mr. Malone approached the district's behavior specialist and asked for suggestions. First, the behavior specialist made sure there was indeed a problem. Once he was convinced there was a problem (see Chapter 3), he told Mr. Malone there were several steps to take to solve this problem, and he suggested that Mr. Malone was going to have to change some assumptions about Katrina and her behavior. The behavior specialist indicated that labels such as "emotional disturbance" do not cause a behavior to occur or not occur. He told Mr. Malone there is a reason to be found in the classroom for Katrina's difficulties. The behavior specialist told Mr. Malone Katrina's unwanted behavior was being positively reinforced by something such as attention from Mr. Malone or the other students or negatively reinforced by something such as the removal of the requirement that she complete classroom work.

The specialist told Mr. Malone he should conduct an FBA to be sure of the likely cause of her behavior. He gave Mr. Malone some forms to complete. Also, he told Mr. Malone that, once the "function" of the behavior was known, he should develop a behavior support plan. Mr. Malone was told to make sure the behavior support plan had a summary statement that included possible setting events, antecedents, behaviors, and consequences. This summary statement should show what the likely function of the behavior is. The behavior support plan should also describe how teachers will attempt to teach Katrina other ways of gaining access to the reinforcer. For example, if Katrina tries to gain attention inappropriately, Mr. Malone was told, he should ignore the unwanted behavior and teach Katrina to get attention in a more appropriate way. Finally, the specialist told Mr. Malone he should also consider how he was going to monitor the plan to see whether it was effective.

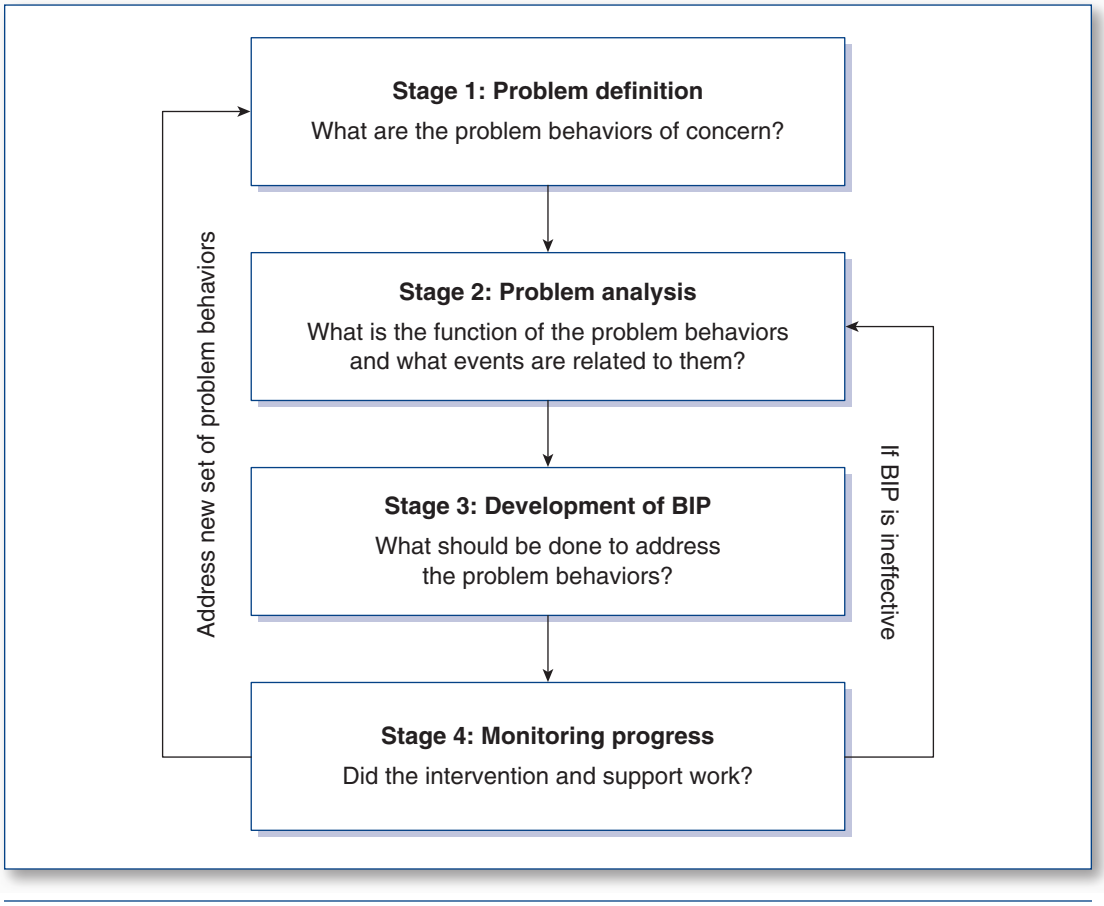
Summary

FBAs are a critical aspect of developing behavior support plans. FBAs have their theoretical origins in a behavioral understanding of why we do what we do. Hence, an understanding of context and of function underpins FBAs. Our behavior is primarily influenced by our context, including our physiological makeup, our broader cultural influences, and the immediate environment. An FBA targets an understanding of how these contexts influence a student's behavior. FBAs examine the setting events, antecedents, and consequences that maintain behavior. Setting events are those broader contexts that predispose a person to behave in certain ways. Antecedents are those immediate events that tend to trigger the occurrence of challenging behavior. Consequences describe that which happens in the environment following a behavior and increases the probability of that behavior in the future. An FBA must address all of these contextual elements. There are a number of different types of FBAs including interviews, checklists, observations, and functional analyses. It is typical to conduct a couple of these assessments when implementing an FBA. Correspondence between two or more assessments with regard to what may be causing and maintaining challenging behavior can produce more confident

conclusions and suggestions for a behavior support plan. The behavior support plan is derived from the results of the FBA. These plans should address setting events, antecedent influences, and maintaining consequences (Killu, 2008). Behavioral supports are generally educational in nature, as they typically teach the student alternative appropriate behaviors to replace the unwanted behavior. Behavior support plans also focus on arranging setting events and antecedents in a manner that enhances appropriate behavior and preempts unwanted behavior. The effectiveness of the support plan is ultimately determined by positive changes in the student's behavior. If positive change is not achieved, then the assessment and intervention development process may need to be revisited.

Figure 4.15 summarizes the process of conducting FBAs and developing behavior support plans (also termed BIPs) (Nelson et al., 1998). If teachers follow this process, their effectiveness as behavior managers should increase.

Figure 4.15 Stages in Conducting Functional Behavior Assessments and Developing Behavior Support Plans



NOTE: BIP = Behavior intervention [or support] plan

SOURCE: From J. R. Nelson, M. L. Roberts, and D. J. Smith, *Conducting Functional Behavioral Assessments: A Practical Guide*. Copyright © 1998 by Sopris West. Reprinted with permission from Cambium Learning Group-Sopris West Educational Services, Longmont, CO. 800-547-6747. (Packs of forms are available for purchase from Sopris West.)

Key Terms

A-B-C analysis 124
behavior intervention plan (BIP) 112
behavior support plan 112
checklist 122
descriptive analyses 124
external validity 134
functional analyses 134
Functional Analysis Screening Tool (FAST) 122
functional behavior assessment (FBA) 113
functional relationship 114
indirect assessments 118
internal validity 134
interview assessments 118
Law of Effect 116
Motivation Assessment Scale (MAS) 122
observation forms 126
Problem Behavior Questionnaire 122
rating scales 122
reliability 134
scatter plot 128

Discussion Questions

1. What do we mean by context?
2. What do we mean by function?
3. Why would you want to complete a functional behavioral assessment before you develop and implement a behavior support plan?
4. Of the three categories of functional behavioral assessments, which one or ones do you see as being most usable by classroom personnel? Why?
5. Why is it important to conduct and document the results of a functional behavioral assessment?
6. Why are indirect assessments used so much by school personnel?
7. Describe the major characteristics of the A-B-C analysis.
8. Describe the major characteristics of the scatter plot assessment.
9. What are the possible limitations of conducting a functional analysis?
10. How should the FBA impact the development of a behavior support plan?