

S E C O N D E D I T I O N



**Functional Assessment
and Program Development for
Problem Behavior**

A PRACTICAL HANDBOOK

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P R E F A C E

The development of the second edition of this handbook was prompted by a number of issues. Substantial conceptual and technological advances continue to be made in approaches for analyzing patterns of problem behavior and developing support programs, and we wanted to incorporate them into the handbook. Also, we have modified the forms and procedures in the first edition in ways we believe will improve both the efficiency and effectiveness of the functional assessment process. Above all, we were strongly motivated to continue providing teachers, clinicians, and family members with practical strategies to help them in their daily work.

The majority of this handbook is devoted to strategies that are considered part of functional assessment rather than functional analysis. Functional assessment is a broad process for gathering information to understand problem behavior situations and develop effective support plans. Functional analysis is a process for conducting experimental analyses of the contingencies that maintain problem behaviors. The definitions of these terms and the strategies involved in both approaches are discussed in detail in a number of sections of the handbook.

To make the handbook easy to read, we have purposely avoided providing a large number of references in the text. Instead, we have provided a list of references and resources

relevant to functional assessment and analysis in Appendix A. Readers interested in relevant research and other related material should consult this list.

Efforts to support persons who exhibit serious problem behaviors will always involve some level of risk to the person themselves and to the staff and family members attempting to support them. We have made every effort to recommend appropriate safety guidelines throughout this handbook. However, we recognize that no procedures can absolutely guarantee the safety of people involved in problematic situations. Therefore, we must declare that all responsibility for ensuring the safety of individuals who become involved in procedures described in this handbook lies with those implementing and supervising the procedures (such as teachers, psychologists, parents and family members, residential and vocational staff, and consultants). No legal responsibility or obligation for personal safety is accepted by the United States government; the University of Oregon; the University of Utah; Chapman University; the states of Oregon, Utah, and California; the authors of this manual; or the publisher.

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C H A P T E R O N E

Introduction

Purpose of the Handbook

This handbook presents specific forms and procedures for the functional assessment of problem behaviors and for the use of this information in developing comprehensive behavioral support plans. Functional assessment is the general label used to describe a set of processes for defining the events in an environment that reliably predict and maintain problem behaviors. Functional assessment can include interviews, rating scales, direct observations, and systematic, experimental analysis of problem situations. These experimental analyses, in which behavior is observed while elements of the environment are manipulated (in such ways as giving rewards following problem behavior), are a part of functional assessment and carry the label *functional analysis*. Over the past decade, major effort has been focused on identifying the simplest and most efficient strategies for conducting functional assessments and analyses. More recently, attention has turned to procedures for using functional assessment and analysis information to design effective behavioral support strategies. The procedures presented in this handbook represent outcomes of that effort.

The purpose of this handbook is to present the logic, forms, and examples that will allow the reader to (a) conduct a functional assess-

ment in typical school, work, or community settings, and (b) develop a behavioral support plan that addresses problem behaviors.

We have prepared this handbook because we believe that the opportunities for people with severe problem behavior to experience a high quality of life as regular members of school, work, and community settings are dependent on our ability to collaborate with them in designing effective support. Problem behaviors are a barrier to community life only if adequate support is not available.

This handbook presents a basic approach to functional assessment and program design as well as *specific* forms and procedures that have proven useful in schools, work settings, and homes. When used properly, these materials and procedures can contribute significantly to effective behavioral support for individuals in our communities.

We have developed this handbook with appreciation for changes that are occurring in the field of behavioral support. One important development is recognition that effective behavioral support should not only help to reduce problem behaviors but should also change the opportunities a person has for learning new skills, for social inclusion, for access to meaningful activities, and for basic participation in the local community. Behavioral support is effective when it positively affects how a per-

We encourage you to modify and adapt the tools in this handbook. Depending on your professional role or on the particular situation or circumstances that you encounter, you may find minor variations of our forms and procedures useful. We have designed the forms and procedures to be flexible. Please copy, revise, and modify these forms in any manner that is useful for your own situations.

This handbook is designed to serve as a *guide* to functional assessment and program development processes. It does not present comprehensive information on a wide range of behavioral support strategies. The tools presented have been found to assist competent people to be more effective, but they are not described in the detail needed for people just beginning in the field. We assume that users of this handbook will have basic training and experience in the theory and tactics of applied behavior analysis. For more in-depth discussion of the theory, research basis, and intervention procedures associated with applied behavior analysis, please refer to the references listed in Appendix A.

Functional Assessment

Problem behaviors often are a source of confusion and frustration. The person engaging in problem behaviors may appear to find the behavior difficult and painful. The families,

teachers, support staff, and advocates of the person frequently are confused and distressed over the challenge of trying to alter such behavior patterns. In many situations, problem behaviors may not only be dangerous but may also seem inexplicable. Such patterns of behavior do not fit with the way we think the world should work and often don't make sense to people in the throes of the dilemma created by their occurrence. One of the goals of a good functional assessment is to bring clarity and understanding to otherwise chaotic and confusing situations. We seldom reach this goal by focusing on diagnostic labels (such as autism, mental retardation, Down syndrome) or the simple topography or form of the problem behavior (such as hitting, kicking, screaming). Order is achieved through a systematic assessment and understanding of the variables that set the occasion for the occurrence (or nonoccurrence) of problem behaviors and the consequences that maintain those behaviors.

What Is a Functional Assessment?

Functional assessment is a process for gathering information that can be used to maximize the effectiveness and efficiency of behavioral support. A functional assessment is complete when five main outcomes have been achieved, as shown in Box 1.1.

BOX 1.1 The Five Primary Outcomes of the Functional Assessment Process

1. A clear *description of the problem behaviors*, including classes or sequences of behaviors that frequently occur together
2. Identification of the events, times, and situations that *predict* when the problem behaviors *will* and *will not* occur across the full range of typical daily routines
3. Identification of the *consequences that maintain the problem behaviors* (that is, what functions the behaviors appear to serve for the person)
4. Development of one or more *summary statements* or hypotheses that describe specific behaviors, a specific type of situation in which they occur, and the outcomes or reinforcers maintaining them in that situation
5. Collection of *direct observation data* that support the summary statements that have been developed

The processes used in conducting a functional assessment can take many forms and have many levels of precision. Anyone who has ever used an A-B-C (Antecedent-Behavior-Consequence) chart has conducted one form of functional assessment. Anyone who has observed undesirable behavior in different situations and concluded that “she does that because . . .” or “he does that in order to . . .” has developed a type of summary statement concerning variables influencing behavior. Our experience has been that a functional assessment is helpful in the design of behavioral support once the assessment information allows confident prediction of the conditions in which the problem behavior is likely to occur and not occur, and when there is agreement about the consequences that appear to maintain the problem behavior. Recently, several researchers and experienced clinicians have begun advocating functional assessment procedures in which the intensity of the assessment matches the complexity of the problem behavior. That is, if less rigorous and easy to implement assessment procedures produce a confident description of the events that predict and maintain a problem behavior, there is no reason to use more rigorous and precise procedures. If, however, a procedure such as an interview does not generate clear and compelling patterns, then more intense and precise observations and manipulations may be warranted. The procedures and tools described in this handbook offer a range of efficient strategies for conducting a comprehensive functional assessment. In fact, in their entirety, the procedures

presented here may be more comprehensive than a clinician or practitioner (behavior specialist, teacher, program manager) often needs for the design of a typical support plan. However, the full range of assessment approaches and options needed for those individuals and situations in which a durable and complex behavior, or group of behaviors, has been identified is included.

An Overview of Three Approaches for Functional Assessment

Specific methods for collecting functional assessment information fall into three general strategies: informant methods, direct observation, and functional analysis (Box 1.2).

Informant Methods

The first strategy for conducting functional assessment is to talk to the person with problem behaviors (if possible) and to those people who have direct contact with and knowledge about the individual. You may have had occasion to provide information about the occurrence of problem behaviors or to seek such information from relevant others (parents, teachers). Interviews (even self-interviews) and other informant methods (questionnaires, rating scales) can be useful in defining and narrowing the range of variables that may affect the behaviors of concern. Interviews also are typically a good way of pulling

BOX 1.2 Three Strategies for Collecting Functional Assessment Information

Strategy 1: Informant methods. Talk to the individual and/or to those who know the individual best.

Strategy 2: Direct observation. Observe the person in natural conditions over an extended time period.

Strategy 3: Functional analysis manipulations. Systematically manipulate potential controlling variables (consequences or structural variables) in analog or natural conditions and observe effects on the person's behavior.

together the body of existing knowledge regarding a person's patterns of behavior.

A major goal of any interview procedure is to identify which of the hundreds of events in an environment seem to be linked to the specific problem behavior of a specific person. When you are conducting an interview, consider the daily routines the person performs. If you are focusing on a child in school, what are the routines of the classroom? How do children enter the room? What are the morning activities? What happens during transitions? How do children move from room to room? What happens during recess and lunch? Consider the problem behaviors in the context of the established routines. Use the interview questions to understand what features of these routines appear salient for the person. What changes in these features seem to be associated with increases and decreases in problem behavior? Two individuals in the same setting with the same diagnosis and the same type of problem behavior may be responding to extremely different features. One goal of the interview is to understand which of the many antecedent and consequence features in that setting and routine are associated with the problem behaviors.

Remember that part of a good functional assessment is to place the problem behavior in a context. Too often we talk and operate as if people "have" behaviors. Behavior analysis has taught us that we should always talk about behavior as occurring in contexts, not in people. Fredda is not a biter; rather, when presented with food she does not like, Fredda will bite her wrist until the undesired food is removed. If we consider problem behaviors as occurring in people, it is logical to try to change the people. If we consider problem behaviors as occurring in contexts, it becomes logical to change the context. Behavior change occurs by changing environments, not trying to change people. Functional assessment is a process for understanding the context (antecedents and consequences) associated with problem behaviors. Interviews are one valuable tool for identifying the features of a context that are important for or associated with a person's problem behavior.

Many examples of functional assessment interviews and questionnaires can be found in the literature. In most cases, however, they share an emphasis on gaining information about the following:

1. What are the problem behaviors that are causing concern?
2. What events or physical conditions that occur significantly earlier in time prior to the problem behavior increase the predictability that the problem behavior will occur?
3. What events and situations that occur just prior to the problem behaviors reliably predict occurrence of problem behaviors? What events reliably predict that problem behaviors will *not* occur?
4. Given a specific situation when the problem behavior occurs, what are the consequences that appear to maintain the problem behavior?
5. What appropriate behaviors (if any) could produce the same consequences that appear to maintain the problem behavior?
6. What can we learn from previous behavior support efforts about strategies that are ineffective, partially effective, or effective for only a short time?

Direct Observation

The second strategy for collecting functional assessment information is to systematically observe the person with problem behavior in typical daily routines. Systematic, direct observation has long been the foundation of applied use of behavioral procedures. In the 1960s, Dr. Sidney Bijou and his colleagues provided the first strategies for using this approach to get assessment information. Direct observations usually are done by teachers, direct support staff, and/or family members who already work or live with the person. The observations must be done in a manner that does not interfere with normal daily events or require extensive training. In most cases, the observers record when a problem behavior occurs, what was happening just before the behavior, what happened

after the behavior, and their perception of the function of the behavior in that instance. When such information is collected for 10 to 15 instances of the problem behavior, it typically allows observers an opportunity to discover whether a pattern exists that will allow determination of the following:

1. What problem behaviors happen together?
2. When, where, and with whom are problem behaviors most likely?
3. What consequences appear to maintain occurrence of the problem behavior?

In Chapter 2, we present a Functional Assessment Observation Form. We have found this form to be practical, efficient, and effective for confirming and building on information obtained from more indirect informant methods.

Functional Analysis

The third strategy for gathering functional assessment information involves the systematic manipulation of specific variables that are or are not associated with the problem behaviors. In conducting a functional analysis, you systematically monitor behavior while manipulating the environment. One frequently used method of functional analysis involves the manipulation of consequences contingent on the occurrence of targeted behaviors. Another method involves manipulating structural variables such as task difficulty, task length, level of attention provided during an activity, or the presence or absence of choice in an activity. Functional analysis amounts to a formal test of the relationship between environmental variables and the occurrence or nonoccurrence of problem behaviors. Functional analysis is the most precise, rigorous, and controlled method of conducting a functional assessment. Functional analysis is the only approach that allows unambiguous demonstration of a functional relationship between environmental events and problem behaviors. Brian Iwata and his colleagues have pioneered a powerful approach to functional analysis, and

this approach has been adapted by F. C. Mace, David Wacker, Timothy Vollmer, and others. Functional analysis can be expensive in time and energy, but in some cases, it may be the only way to ensure an adequate assessment of problem behaviors. Because functional analysis involves creating situations that will provoke the problem behavior and because success of the process requires research-like skills, it is seldom wise for a functional analysis to be conducted without the direct involvement of a person trained in conducting behavior-analytic research.

This handbook presents specific procedures for implementing each of these three functional assessment strategies. Our emphasis, however, will be on interview and direct observation methods because we believe these are the most applicable in typical homes, schools, and communities. The key issue to remember is that these strategies are designed to identify the relationships between problem behaviors and the antecedents and consequences that occasion and maintain these behaviors. The assumption is that by understanding these relationships we can develop plans of behavioral support that (a) will be more effective, (b) will be more efficient, and (c) will produce broader change in the lifestyle of the individual with problem behaviors.

Why Conduct a Functional Assessment?

There are two central reasons for conducting a functional assessment. The first is that information about when, where, and why problem behaviors occur is extremely valuable in building effective and efficient behavioral support. If interventions are developed without a functional assessment, they may make problem behaviors worse. We have all seen instances in which a child was having tantrums to gain a treat and then was told she could have the treat if she were quiet, or a child who was behaving aggressively to avoid a task and was sent to the corner for her behavior. In each case, the presumed solution actually reinforced the

problem behavior. The danger of making problem behaviors worse is very real. Functional assessment not only helps in the development of effective and efficient plans, but it also helps us avoid programmatic errors.

The second reason a functional assessment should be done with severe problem behaviors is that it is now a professional standard. The Association for Behavior Analysts published a "Right to Effective Treatment" (Van Houten et al., 1988), which includes the right of all individuals who receive behavioral intervention to a professionally competent functional assessment. The National Institutes of Health conducted an important consensus conference on dangerous and destructive behavior (NIH Consensus Report, 1989) which strongly endorsed the use of functional assessment procedures. More recently, a number of states (Minnesota, Florida, California, Utah, Washington, Oregon, New York) have instituted laws or state regulations stipulating the need for a functional assessment prior to significant behavioral interventions.

Functional assessment is now a professional standard for psychologists, teachers, and adult service providers delivering behavioral support to children and adults with disabilities. The use of functional assessment not only makes programmatic sense; it is an expected practice in the field.

Before Conducting a Functional Assessment: Additional Issues to Consider

Given the need for a broad impact, behavioral support can often benefit from companion assessment procedures. Three companion sources of assessment data that we have used include (a) person-centered planning, (b) activity pattern assessment, and (c) assessment of medical/physical issues.

Person-Centered Planning

During the last ten years, a variety of approaches have been developed to create a per-

son-centered plan, or vision of the future for an individual. This plan is developed with all the individuals actively involved in a person's life. Typically, there is a broad focus, including the personal preferences and strengths of the person and not just the problems and difficulties he or she experiences. The process of personal futures planning offers a broader context in which to build behavior support plans. It is through this broader process that we follow the advice of the noted behavior analyst Dr. Todd Risley to begin good behavioral support by helping a person "get a life" and then build in the more detailed behavior support systems that may be needed.

Activity Patterns and Social Life

Our quality of life, and therefore our behavior, is greatly influenced by the activities in which we engage and the social life we experience. In analyzing people's activity patterns, you can address issues such as the variety of activities they perform, the degree of community integration they experience, and the extent to which their preferences are reflected and accommodated. In considering their social life, the makeup of their social network (size, presence or absence of significant others, longevity of relationships) and the nature of their social interactions (such as number of opportunities to engage in preferred activities with preferred people) can provide important clues to the changes needed in support. Two instruments referenced in Appendix A, the Resident Lifestyle Inventory (Kennedy, Horner, Newton, & Kanda, 1990) and the Social Network Analysis Form (Kennedy, Horner, & Newton, 1990) have proven useful in analyzing these lifestyle issues. We recommend their inclusion or the use of similar instruments within the comprehensive assessment process leading to a behavioral support plan.

Medical and Physical Issues

Dr. Jon Bailey has emphasized the need to examine medical or physical conditions that may be influencing problem behaviors. Too

often behavioral interventions have been used to address problem behaviors that have a medical etiology. One important concern is to identify or rule out the presence of low-incidence syndromes that are associated with specific patterns of severe problem behaviors. Also, many conditions including allergies, sinus or middle ear infections, premenstrual and menstrual cycle effects, urinary tract infections, toothaches, and chronic constipation may exacerbate the occurrence of particular behaviors. The effects and side effects of medication regimes represent a major area often requiring attention, given the large number of persons with disabilities who receive a variety of neuroleptic, seizure control, and other types of medications. Determining the influence of such medical/physical variables and developing strategies for dealing with them typically require a collaborative support process that includes appropriate medical personnel to provide the necessary services.

A Statement of Values

Functional assessment is not a value-free technology. We offer the materials and procedures in this handbook with three value-based assumptions. *The first is that behavioral support must be conducted with the dignity of the person as a primary concern.* Functional assessment is appropriate because it acknowledges that a person's behavior is functional. People do not engage in self-injury, aggression, severe property destruction, or seriously disruptive behaviors solely because they have mental retardation or other developmental disabilities. Rather, they engage in patterns of behavior that have worked for them and continue to work for them in some way. There is a logic to their

behavior, and functional assessment is an attempt to understand that logic.

The second value-based assumption is that the objective of functional assessment is not just to define and eliminate undesirable behaviors but to understand the structure and function of those behaviors in order to teach and promote effective alternatives. The goal of behavioral support is to create environments and patterns of support around people that make their problem behaviors irrelevant, ineffective, or inefficient. We hope the information you obtain by using the materials and procedures presented in this handbook will make you more effective at identifying (a) unnecessary situations that prompt undesirable behaviors you can eliminate or modify; (b) new or alternative skills you can teach that will be more effective and efficient than the undesirable behaviors, thereby making them unnecessary; and (c) effective staff responses to the undesirable behaviors.

The third value-based assumption is that functional assessment is a process for looking at relationships between behavior and the environment. It is not simply a "review" of the person with problem behaviors. Problem behaviors cannot be addressed without looking at the broader environmental contexts within which they occur. A functional assessment should produce information about (a) the undesirable behaviors, (b) relevant structural features of the environment, and (c) the behavior of support providers and patterns of support such as staffing patterns. A functional assessment is as much an analysis of the environment (schedules, activity patterns, curriculum, support staff, physical settings) as it is of the behavior of the person. Do not allow a functional assessment to become a process that "blames" the person for behaving in undesirable ways.