

## Functional Behavioral Assessment: Overview

Rick Albin  
University of Oregon



---

---

---

---

---

---

---

---

## Objectives

- Provide an overview of functional behavioral assessment process, methods, and outcomes
- Focus on developing FBA hypothesis statements
- Identify current issues and problems related to common practice with FBA

2

---

---

---

---

---

---

---

---

## Workshop Assumptions - Participants Have:

- Basic knowledge of functional behavioral assessment procedures
- Experience collaborating in the design of behavior support plans
- Experience with team-based behavior support efforts



3

---

---

---

---

---

---

---

---

## Features of Function-based Behavior Support for Individuals

- Behavior support begins with a vision for the focus person
- Behavior support is based on functional assessment hypotheses
  - Procedures logically linked to FBA information
  - Written plan presents FBA hypotheses and then lists & describes support procedures
- Behavior support involves multiple systems, not a single procedure

4

---

---

---

---

---

---

---

---

## Steps in Function-based Support Process

- Define the challenge
- Build a testable hypothesis (interview, observe)
- Confirm the hypothesis (observe, manipulate)
- Use “competing behavior analysis” to build possible elements of behavior support plan
- Use “contextual fit” guidelines to select final elements of behavior support plan
- Implement behavior support plan
- Monitor and modify as needed

5

---

---

---

---

---

---

---

---

## Functional Behavioral Assessment

- Defined:
- *Functional behavioral assessment is a process for identifying the events that reliably predict and maintain problem behavior.*

6

---

---

---

---

---

---

---

---

### Functional Assessment is Consistent with Person-Centered Values

- Taking time to understand the events that control a person's problem behaviors is respectful.
- Functional assessment helps to embed behavior support into a larger person-centered planning process
  - Use person-centered planning to develop a "vision" and goals for the person before designing a support plan.
- Functional assessment is a collaborative team process

7

---

---

---

---

---

---

---

---

### Purposes of Functional Behavioral Assessment

- Create order out of chaos
- Improve the effectiveness and efficiency of behavior support efforts.
- Professional accountability
- Comply with federal and state statutes

8

---

---

---

---

---

---

---

---

### Functional Assessment places problem behavior in "context"

- Behavior - defined in observable terms
- Predictors/Controlling Antecedent Stimuli
  - Cues, events, situations that set off (trigger) behavior
- Maintaining Consequences
  - What the person gets or escapes/avoids that keeps behavior recurring
- Setting Events/Establishing Operations
  - Conditions, events that "set a person up" for problem behavior when a "triggering" cue/event occurs
  - Operate by changing the value of consequences

9

---

---

---

---

---

---

---

---

## Functional Assessment Outcomes

- Operational Description of Problem Behavior
  - Organized by response classes, behavioral routines
- Identification of events that reliably predict occurrence and nonoccurrence of problem behavior
  - Immediate antecedents and setting events
- Identification of Maintaining Consequences
- Hypothesis statement that summarizes context and function of problem behavior
- Direct observation data to confirm hypothesis

10

---

---

---

---

---

---

---

---

## Functional Behavioral Assessment Methods

- Indirect Information – define the challenge and develop hypotheses
  - Interviews (e.g., O’Neill et al. FAI and Student-Guided forms, FACTS)
  - Rating Scales (e.g., Durand & Crimmins MAS form)
- Direct Observation – confirm hypotheses
  - ABC Charts
  - Scatter Plots
  - Functional Assessment Observation Form (O’Neill et al.)
- Systematic Manipulations – confirm hypotheses
  - Functional Analysis
  - Structured Descriptive Assessment

11

---

---

---

---

---

---

---

---

## Conduct Functional Assessment in the Context of Routines and Activities

- Identify the scope of problem behaviors by identifying the routines or activities in which problems occur
  - Routines are sequences of activities and tasks, e.g., morning routine, dinner routine, taking a break at work, grocery shopping, entering the classroom
- Organize the day by routines and identify the likelihood of problems in each routine
  - Identify behaviors, antecedents (triggers), consequences, and setting events within each routine

12

---

---

---

---

---

---

---

---

## Using Interviews and Rating Scales

- Who should be interviewed?
  - The focus person with problem behavior (provided communication skills allow)
  - Knowledgeable informants who have lived with, worked with, or known the focus person long enough to know them and to have seen their behavior patterns
    - Parents & family, current support staff, former teachers and support staff, friends, others who know person well
    - People who have seen problem behaviors occur several times

13

---

---

---

---

---

---

---

---

## Using Interviews and Rating Scales

- How and for how long?
  - Varies considerably with format of the interview and complexity of the problem behavior and situation
  - Consider logistics in leading or participating in FBA interviews
    - Number of people to be interviewed and their availability, time available; relationships among participants; number of settings in which problem behavior occurs

14

---

---

---

---

---

---

---

---

## Using Interviews and Rating Scales

- Collect information on what people have seen happen and experienced first hand
  - Interpretation or analysis is OK, but make sure you get the "facts"
  - If you are an informant, report what you have seen
    - Not just what you think is going on "inside" the focus person
- It is OK to hypothesize about function, but stick to testable explanations or hypotheses
  - A testable hypothesis is one that can be confirmed or disconfirmed through observation or data

15

---

---

---

---

---

---

---

---

## Defining the Challenge

- Define the problem behavior(s)
  - Operational Description of Problem Behavior
    - Observable, measurable
    - Topography, rate, duration, intensity
  - Organize by Response Classes
    - Behaviors maintained by the same function
- Identify relevant routines where problems are likely & those where unlikely
  - Schedule of activities & other relevant routines
    - In home and community
  - Include transitions as a routine

16

---

---

---

---

---

---

---

---

## Develop Summary Hypothesis Statements

- Hypothesis statements identify what sets the person up for problem behaviors (setting events), what sets the person off (immediate predictor events), the problem behaviors ("class of responses"), and maintaining consequences (the function)
- Develop a separate hypothesis statement for each functional response class

17

---

---

---

---

---

---

---

---

## Develop Summary Hypothesis Statements (continued)

- If problem behaviors serve multiple functions, then develop separate hypothesis statements for each function
- Identify your "confidence level" for each hypothesis statement
  - How confident are you (the team) that the hypothesis is accurate?
    - Ideally, you want a high level of confidence
  - Need for confirmation (through direct observations or manipulations) increases greatly, when confidence is low
    - Also, may need to collect more information through indirect methods

18

---

---

---

---

---

---

---

---

## Build Testable Hypothesis

- Predictor (antecedent) Events
  - Predict occurrence and non-occurrence
- Maintaining Consequences (from focus person's perspective)
  - Get (social attention/reward, physical objects/activities, automatic (internal) sensation)
  - Escape/avoid (aversive social contact, aversive activity/external stimulus, aversive internal sensation)
- Setting Events (may be distant in time)
  - Momentary change in value of consequences

19

---

---

---

---

---

---

---

---

## Functional Assessment Hypothesis Statements

- "Build a Testable Hypothesis" ... With Precision
- 4                      2                      1                      3
- Setting Event → Antecedent → Problem → Maintaining Behavior Consequence
- Headache → Task Demand → Scream → Avoid Demand
- Headache → Request to wash hands, dishes, etc → Scream → Avoid wet hands

20

---

---

---

---

---

---

---

---

## Example

- Jason screams and hits his head when approached by his peers Marge or Allison. When he screams, Marge and Allison move away and leave Jason alone. This is more likely if Jason is tired.
- Problem Behavior:
- Antecedent Event (Trigger):
- Maintaining Consequence:
- Possible Setting Event:

21

---

---

---

---

---

---

---

---

## Write a hypothesis statement

- 4            2            1            3
- Setting Event --> Antecedent --> Problem --> Maintaining
- Behavior    Consequence
- Tired --> Approached by --> scream --> Avoid
- Marge/Allison       hit head    Marge/Allison

How could you increase the precision of this hypothesis?

22

---



---



---



---



---



---



---

**Marla steals food and hides it in her room. There is always a “big scene” when the food is discovered. The problem is most likely during staff shortages**

- Setting Event --> Antecedent --> Problem --> Maintaining
- Behavior    Consequence
- Staff shortage --> Time alone --> steals food --> staff attention

23

---



---



---



---



---



---



---

## Confirm FBA Hypothesis

- Direct Observation in Natural Conditions
  - When problem behavior occurs is it preceded by predicted antecedents, and associated with presumed maintaining consequences?
  - Does problem behavior occur during anticipated routines?
- Use hypotheses and other information from informants to set up and organize direct observations
- Structured descriptive assessment is a recent development and alternative

24

---



---



---



---



---



---



---



## Tools for Confirming Hypotheses

- Direct observation methods – formalized data collection
  - ABC Charts
  - Scatter Plot
  - O’Neill et al. Functional Assessment Observation Form
- Why not “narrative” forms such as logs or incident reports?
  - Too difficult to interpret and identify patterns of behavior
- Manipulations – FA and SDA

25

---

---

---

---

---

---

---

---

## Doing Direct Observation

- Who observes? - Two approaches
  - Ongoing data collection by those directly involved (e.g., teachers & assistants, family members & direct caregivers)
  - “Consultant” model - data collected by an “outside” person
  - In-house model - ongoing data collection by those in direct contact
- How long?
  - Until patterns are clear (15-20 events) and confirmation occurs
  - FBA is not a one-shot event, so observations may continue over time

26

---

---

---

---

---

---

---

---

## Doing Direct Observation

- Where to observe?
  - In the context of routines/activities in which problems occur most frequently or are most problematic
  - Across routines/activities to look for and confirm patterns of behavior
    - For example, screaming occurs across a variety of contexts whenever staff requests ending an activity that is enjoyed

27

---

---

---

---

---

---

---

---

How do you “confirm” a hypothesis?

- The data you collect needs to provide information about (behavior, antecedent and consequence)
- Question #1: Of the times that you saw the problem behavior occur, what proportion included antecedents and consequences predicted by your hypothesis? You get a Percent Agreement score. 67% agreement is usually strong agreement.

28

---

---

---

---

---

---

---

---

How do you “confirm” a hypothesis?

- Question #2: From the direct observation data can you improve the precision of the hypothesis statement?
  - For example, activities may be aversive for a person and lead to escape-motivated problem behavior because they are too difficult, too easy, too strenuous, too boring, or result in too many corrections or interruptions
  - Being able to identify a specific reason why an activity triggers problem behavior reflects increased precision

29

---

---

---

---

---

---

---

---

How do you “confirm” a hypothesis?

- Question #3: Were there instances where you expected to see the problem behavior and it did not happen? If so, what was different about these instances and those where you did see the problem behavior?
  - Being able to predict the absence of problem behavior is as important as being able to predict its occurrence
  - For example, no problems when staff makes a request and stays around to provide attention, in contrast to problems occurring when staff makes a request and then immediately leaves the area to do something else

30

---

---

---

---

---

---

---

---



Behaviors:  
 a) Screams, throws, break  
 b) Leaves setting  
 c) Physical Aggression

Behaviors	Days													
	M	T	W	Th	F	Sat	Sun	M	T	W	Th	Fr	Sat	
Line														
Breakdown														
Time out							Na	Na						Na
1995-10-28	a	a	a	a	a				a	a	a	a	a	
1995-10-29		a	a						a	a				
1995-10-30	a	a	a	a					a	a				
1995-10-31	a	b	b						b					
1996-11-01		a							a					
1996-11-02							Na	Na						Na
1996-11-03														
1996-11-04														
1996-11-05				c	c				c					
1996-11-06														
1996-11-07														
1996-11-08														
1996-11-09														
1996-11-10														
1996-11-11														
1996-11-12														
1996-11-13														
1996-11-14														
1996-11-15														
1996-11-16														
1996-11-17														
1996-11-18														
1996-11-19														
1996-11-20														
1996-11-21														
1996-11-22														
1996-11-23														
1996-11-24														
1996-11-25														
1996-11-26														
1996-11-27														
1996-11-28														
1996-11-29														
1996-11-30														
1996-12-01														
1996-12-02														
1996-12-03														
1996-12-04														
1996-12-05														
1996-12-06														
1996-12-07														
1996-12-08														
1996-12-09														
1996-12-10														
1996-12-11														
1996-12-12														
1996-12-13														
1996-12-14														
1996-12-15														
1996-12-16														
1996-12-17														
1996-12-18														
1996-12-19														
1996-12-20														
1996-12-21														
1996-12-22														
1996-12-23														
1996-12-24														
1996-12-25														
1996-12-26														
1996-12-27														
1996-12-28														
1996-12-29														
1996-12-30														
1996-12-31														
1997-01-01														
1997-01-02														
1997-01-03														
1997-01-04														
1997-01-05														
1997-01-06														
1997-01-07														
1997-01-08														
1997-01-09														
1997-01-10														
1997-01-11														
1997-01-12														
1997-01-13														
1997-01-14														
1997-01-15														
1997-01-16														
1997-01-17														
1997-01-18														
1997-01-19														
1997-01-20														
1997-01-21														
1997-01-22														
1997-01-23														
1997-01-24														
1997-01-25														
1997-01-26														
1997-01-27														
1997-01-28														
1997-01-29														
1997-01-30														
1997-01-31														
1997-02-01														
1997-02-02														
1997-02-03														
1997-02-04														
1997-02-05														
1997-02-06														
1997-02-07														
1997-02-08														
1997-02-09														
1997-02-10														
1997-02-11														
1997-02-12														
1997-02-13														
1997-02-14														
1997-02-15														
1997-02-16														
1997-02-17														
1997-02-18														
1997-02-19														
1997-02-20														
1997-02-21														
1997-02-22														
1997-02-23														
1997-02-24														
1997-02-25														
1997-02-26														
1997-02-27														
1997-02-28														
1997-02-29														
1997-03-01														
1997-03-02														
1997-03-03														
1997-03-04														
1997-03-05														
1997-03-06														
1997-03-07														
1997-03-08														
1997-03-09														
1997-03-10														
1997-03-11														
1997-03-12														
1997-03-13														
1997-03-14														
1997-03-15														
1997-03-16														
1997-03-17														
1997-03-18														
1997-03-19														
1997-03-20														
1997-03-21														
1997-03-22														
1997-03-23														
1997-03-24														
1997-03-25														
1997-03-26														
1997-03-27														
1997-03-28														
1997-03-29														
1997-03-30														
1997-03-31														

34



## Confirm Complex Hypotheses

- Functional Analysis
  - Systematic manipulation of environmental events
    - Iwata et al., 1982 (escape, attention, tangible, automatic)
  - Brief Functional Analysis (Wacker et al)
    - Single session per phase, with repetition
  - Structural Analysis (Carr & Durand)
    - Manipulations of antecedents only
    - For example, easy versus hard tasks or high versus low attention

40

---

---

---

---

---

---

---

---

## Issues Related to Practice

- Functional assessment should result in increased "clarity," not increased confusion
  - Create order out of chaos, not more chaos
  - Assess confidence of participants in hypotheses
    - If low, collect more information by talking to more people, by observing longer or in more contexts, or by conducting a functional analysis
  - Confirm your hypothesis (or hypotheses for multiple function problem behavior) through observation
    - Move to more advanced and systematic methods of collecting information as needed to confirm hypothesis and reach consensus
    - Obtain technical assistance if needed (e.g., for functional analysis)
  - Strive for consensus on function(s)
    - Support plans developed without consensus on function, generally, are doomed to failure

41

---

---

---

---

---

---

---

---

## Issues Related to Practice

- Functional assessment is a means, not an end in itself
  - A more effective PBS plan is the desired outcome
- Use the FBA information to select PBS plan components
  - Identify "indicated" procedures, and avoid "contraindicated"
  - Indicated procedures are those that will decrease problem behavior
  - Contraindicated procedures are procedures that will not affect or, worse, will increase problem behavior
    - For example, procedures that reinforce problem behavior – time-out for an escape maintained behavior, attention for an attention maintained behavior

42

---

---

---

---

---

---

---

---

### Issues Related to Practice

- FBA is conducted, PBS plan is implemented, and behavior still does not change (or does not change enough)
  - Confidence in hypothesis may be high and consensus reached, but FBA and resulting PBS plan still may be ineffective or inadequate
- **Don't just throw up your hands and give up!**

43

---

---

---

---

---

---

---

---

### Issues Related to Practice

- FBA and PBS implementation are an ongoing process that may require more than one "iteration" of the process
  - That is – keep working at it
- If the support plan does not work – go back to the FBA process
  - Collect more FBA data; further refine or test your hypothesis; consider alternative hypotheses
- Even when the PBS plan works, changes in contexts and behavior may result in new or different "problems" that require additional FBA

44

---

---

---

---

---

---

---

---

### Three Major Problems to Avoid

1. Support teams end an FBA without a hypothesis regarding the function(s) of problem behavior – ***FBA should always produce a confirmed hypothesis about the occurrence of problem behavior***
2. Support teams end an FBA with such a broad hypothesis that it is not helpful for support planning
  - a. "Problem behavior serves all possible functions"  
***Refine hypotheses within routines and contexts***

45

---

---

---

---

---

---

---

---

### Three Major Problems to Avoid

3. Support teams do not use FBA hypotheses and information in designing a behavior support plan and identifying specific support procedures and strategies  
*Use FBA-indicated procedures in PBS plans*

46

---

---

---

---

---

---

---

---

### Resources for conducting FBA

- O'Neill, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Storey, K., & Newton, J. S. (1997). *Functional assessment and program development for problem behavior: A practical handbook* (2nd edition). Pacific Grove, CA: Brooks/Cole.
- Crone, D. A., & Horner, R. H. (2003). *Building positive behavior support systems in schools: Functional behavioral assessment*. New York: Guilford.

Contact information for Rick Albin:

[ralbin@uncc.edu](mailto:ralbin@uncc.edu)

47

---

---

---

---

---

---

---

---