Functional Behavior Assessment

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Behavior Specialist
Houston County Board of Education
What will we cover today?

• Why do we do Functional Behavior Assessments (FBA)?

• What does IDEA-2004 say about conducting an FBA?

• What does ABC stand for in relation to an FBA?

• How do you operationally define a target behavior that is observable and measurable?

• What are the environmental variables that influence and maintain behavior?
**Functional Behavior Assessment**

**Definition**
- Functional behavior assessment (FBA) is a process rooted in the science of applied behavior analysis (ABA), which focuses on the relationship between behavior and environmental variables. (Autism Internet Module)

- It has 3 basic components:
  - *Indirect assessment (rating scales, interviews, records review)*
  - *Descriptive assessment (direct observation, data collection)*
  - *Functional analysis (experimental manipulation of environmental variables to determine the function of a problem behavior)*
What does IDEA require regarding an FBA?

• An FBA must be conducted:
  ➢ *There is a child with a disability*
    • Who has been removed from school for 10 days
    • For behavior that interferes with the learning environment
    • For misconduct that either
      – Is a manifestation of his/her disability
      – Is not a manifestation of his/her disability
      – Involves weapons or drugs, or serious bodily injury
Who is responsible for participating in an FBA?

The IDEA is not specific regarding who must participate in the FBA process.

State and local education agencies have the discretion to determine who conducts or participates in the process.
When should an FBA be conducted?

As proactively as possible!!!
The ABC’s of an FBA

- **Antecedent** – environmental events or conditions that occur just prior the behavior of interest. This includes setting events.

- **Behavior** – The action of interest, commonly referred to as the **target behavior (bx)**.

- **Consequence** – The environmental event or condition that occurs just after the target behavior that maintains or increases the occurrence of the target behavior.
The 3-Term Contingency

- **Antecedent**: Occurs before
  Conditions that influence or evoke the behavior

- **Behavior**: Observable
  Measurable

- **Consequences**: Contingent on the problem behavior
  Naturally occurring or contrived
First things first…

BEHAVIOR!
Overview

Michael’s Story

Let's consider Michael, an adolescent with autism spectrum disorder (ASD) starting his first job at a customer call center. He is skillful at answering customer questions but is not sure about how to navigate important relationships with his coworkers. In response to the playful teasing between his colleagues in the break room, for example, he frequently erupts into loud name-calling and tantrums, which typically causes his colleagues to leave and thereby results in immediate removal of the challenging social context. Michael has learned, therefore, that it is easier to disrupt social contexts than to face them without the necessary skills. Unfortunately, these behaviors are not acceptable in his workplace and have caused him to be excluded by his peers and have even put him at risk of losing his job.
Understanding Behavior

Those unfamiliar with the science of behavior often offer explanations of behavior that are not helpful for finding a solution.

These explanations are often referred to as “circular reasoning.”

- “He won’t sit because he has ADHD.”
- “How do you know he has ADHD?”
- “I know because he won’t sit!”
Circular Reasoning
<table>
<thead>
<tr>
<th>Lay Description</th>
<th>What Is Observed</th>
<th>Potential Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lazy</td>
<td>Child does not complete a task</td>
<td>Work may be too difficult</td>
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<tr>
<td></td>
<td></td>
<td>Performance may not be consistently reinforced</td>
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<tr>
<td>Violent</td>
<td>Child hits others</td>
<td>Child is reinforced by suspension</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child is reinforced by accolades from peers for being tough</td>
</tr>
<tr>
<td>Oppositional</td>
<td>Child protests when directions are delivered</td>
<td>Tasks are difficult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Directions are not understood</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child has learned that protest results in temporary escape</td>
</tr>
</tbody>
</table>
Case Study: Tom

During a meeting to address Tom's recent behavior problems, Tom's teacher, Mr. Witten, reported that Tom had recently become increasingly noncompliant and that his behavior often escalated to major tantrums. The principal, Mr. Falls, commented that he needed more information and asked Mr. Witten to talk through an incident of "noncompliance" and "tantrumming." Mr. Witten explained that when he asked Tom to put away his classwork and get ready for the next class, he just kept working. He would then walk over to Tom's desk and repeat the request. In response, Tom would clear everything off of his desk with one sweep of his arm, stand up, kick his chair over, and then start yelling. Mr. Falls said, "That's a clear description of what's happening, and I think we can talk about why those behaviors might be occurring and come up with some possible solutions now."
Examples of Very Specific Operational Definitions of Behavior

• Propel an object with force through the air by movement of hand/arm

• Using an open or closed hand to strike or attempt to strike the body part and/or clothing of another person/self

• Projecting matter from mouth (1 inch from body)

• Forcefully gripping skin between finger(s) and/or thumb (including with enough force to leave a visible mark)

• Collapsing body from a standing or seated position to lying on the ground in an uncontrolled manner that is not within context of the ongoing activity
### Operational Definition of the Problem Behavior

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elopement (Piazza et al., 1997)</td>
<td>“Any part of the participant’s body passing through the doorway and moving or attempting to move 3 m (or more) away from the therapist (p.65)”</td>
</tr>
<tr>
<td>Hand mouthing (Roscoe, Iwata, &amp; Zhou, 2013)</td>
<td>“Placement of the hand past the plane of the lips or repetitive contact between the hand and mouth or tongue (p.183)”</td>
</tr>
<tr>
<td>Aggression (Wacker et al., 2013)</td>
<td>“Hitting, throwing items at people, kicking, &amp; pushing (p.35)”</td>
</tr>
<tr>
<td>Property destruction (Greer et al., 2013)</td>
<td>“Throwing, banging, or ripping objects (p.290)”</td>
</tr>
<tr>
<td>Headhitting (Vollmer, Marcus, &amp; Ringdhal, 1995)</td>
<td>“Forceful contact against the head or face by the hand or fist (p.18)”</td>
</tr>
</tbody>
</table>
Consequences

• What do YOU think of when you hear the word CONSEQUENCES?
• How does it differ from the way it applies to the 3-term Contingency?
• That’s why I prefer the term CONSEQUENT EVENT.
REINFORCERS
Consequent events that increase the probability that the behavior they follow will happen again.

Positive
An event, object, or condition is ADDED!
Candy, attention, computer time

Negative
An event, object, or condition is REMOVED!
Aspirin for a headache, Leaving a crowded room.

PUNISHERS
Consequent events that decrease the probability that the behavior they follow will happen again.

Positive
An event, object, or condition is ADDED!
Spanking

Negative
An event, object, or condition is REMOVED!
Time out
## Applied Examples of Potential Three-Term Contingencies

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Behavior</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joey works alone for 15 minutes</td>
<td>Joey bangs his forehead against his desk</td>
<td>Adult asks him to stop (Joey receives attention)</td>
</tr>
<tr>
<td>Ronald is asked to sit down during reading group</td>
<td>Ronald urinates on himself (through his clothing) during reading group</td>
<td>Gets to leave reading group (Ronald escapes the reading group)</td>
</tr>
<tr>
<td>Juan pulls “work time” card from schedule</td>
<td>Juan spits in the face of the paraprofessional</td>
<td>Paraprofessional leaves briefly to wash her face, resulting in a delay of the task (Juan escapes the task)</td>
</tr>
</tbody>
</table>
Functions of Problem Behavior

• Socially mediated positive reinforcement – Access to tangibles or attention from peers/adults
• Socially mediated negative reinforcement – Escape from aversive/non-preferred activities
• Automatic reinforcement in the form of sensory feedback (stereotypical behaviors)
<table>
<thead>
<tr>
<th>What Happened</th>
<th>Potential Consequences</th>
<th>Type of Reinforcer</th>
</tr>
</thead>
<tbody>
<tr>
<td>When asked to check her schedule, Cassie runs out of the room.</td>
<td>Staff runs after her</td>
<td>Attention</td>
</tr>
<tr>
<td></td>
<td>The next activity is delayed</td>
<td>Escape</td>
</tr>
<tr>
<td></td>
<td>She runs down the hall</td>
<td>Automatic sensory feedback</td>
</tr>
<tr>
<td>When asked to leave a preferred activity, Abe grabs the arm of a staff member and bites his arm.</td>
<td>Multiple staff members grab Abe</td>
<td>Attention</td>
</tr>
<tr>
<td></td>
<td>The staff person lets Abe return to the activity</td>
<td>Access to tangible</td>
</tr>
<tr>
<td></td>
<td>The staff person lets Abe return to the activity</td>
<td>Escape from upcoming activity</td>
</tr>
<tr>
<td>After finishing lunch, Gene strips off his clothes.</td>
<td>His peers laugh</td>
<td>Peer attention</td>
</tr>
<tr>
<td></td>
<td>A paraprofessional sweeps him off to the classroom</td>
<td>Adult attention</td>
</tr>
<tr>
<td></td>
<td>A paraprofessional sweeps him off to the classroom</td>
<td>Access to preferred item in the classroom</td>
</tr>
</tbody>
</table>
Antecedent Events

**Discriminative Stimulus (SD)** – A signal that reinforcement is available.

**Motivation Operation (MO)** – Two types

  * **Establishing Operation (EO)** – Increases the value of a reinforcer.
  * **Abolishing Operation (AO)** – Decreases the value of a reinforcer.

**Setting Events** – This refers to events that occur before, but not immediately, the behavior of interest. These events can influence behaviors, but are difficult be discovered in the FBA process.
<table>
<thead>
<tr>
<th>Reinforcing Stimulus</th>
<th>Establishing Operation</th>
<th>Abolishing Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skittles</td>
<td>Missed snack</td>
<td>Large lunch</td>
</tr>
<tr>
<td>Access to Computer Games</td>
<td>Students does not have access to game for 2 hours prior to instruction</td>
<td>Students has computer immediately prior to instruction</td>
</tr>
<tr>
<td>Access to Teacher Attention</td>
<td>Independent work</td>
<td>One to one instruction</td>
</tr>
<tr>
<td>Escape from noisy environment</td>
<td>Loud classroom activity</td>
<td>Class is working quietly</td>
</tr>
</tbody>
</table>
Screening

- Make sure there isn’t a physical issue contributing to the problem behavior.
- Make sure that there’s an actual need for an FBA and that there’s not a simple explanation.
Functional Behavior Assessment

- The ultimate goal of an FBA is to find a functionally equivalent replacement behavior with an emphasis on reinforcement rather than punishment.
Big FBA and little fba

- little fba – observing and adjusting
- BIG FBA
  - Is this behavior dangerous to the student?
  - Is this behavior dangerous to others?
  - Does this behavior interfere with the student’s learning or the learning of others?
  - Does this behavior interfere with socialization?
  - Is the behavior frequent and disruptive?
### Problem Behavior and How it Impacts Educational Performance

**The Target Behavior:**

- Observable
- Measurable

### Functional Behavior Assessment

**FDA Leader:**

**Identify the Reason for this Functional Behavior Assessment**

- Student is engaging in behavior that placed self and others at risk of physical injury.
- Behavioral difficulties result in exclusion from participation in activities or setting with peers.
- Educational team is considering a more restrictive placement due to behavioral concerns.
- Current intervention involves excessively intrusive procedures (i.e. restraint or isolation).
- Student’s behavioral difficulties persist despite consistently implemented behavior management strategies.

### Information Gathered

<table>
<thead>
<tr>
<th>Documentation Reviewed</th>
<th>Date</th>
<th>Significant Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological/Medical</td>
<td></td>
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<td>Parent Contact Interview</td>
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<tr>
<td>Behavior Rating Scales (MAS)</td>
<td></td>
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<tr>
<td>Attendance</td>
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<td></td>
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<tr>
<td>Student Interview</td>
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<tr>
<td>Discipline File Review</td>
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</tbody>
</table>

**Setting Events:**

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# Observations

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>By Whom:</th>
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<tbody>
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</table>

**How often does the behavior occur?**

**Describe the intensity of the behavior:**

## Antecedents

**WHEN is the problem behavior most likely to occur?**

- Morning
- Afternoon
- Before/After School
- Time does not seem to affect this behavior.

<table>
<thead>
<tr>
<th>Times</th>
<th>Times</th>
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<tbody>
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</table>

**WHERE is the problem behavior most likely to occur?**

- General Ed Classroom
- Special Ed Classroom
- Before/After School
- Hallways
- Location does not seem to affect this behavior.

**DURING what Subject/Activity is the problem behavior most likely to occur?**

- Subject(s)
- Seatwork
- Unstructured Activities
- Group Activities
- Task Explanations
- Other:

- Lesson Presentation
- Transitions
- Other:

**WHO is present when the problem behavior is most likely to occur?**

- Teacher (General Ed)
- Teacher (Special Ed)
- classmates
- Other:
- Other Staff and Administrators
- Other:
- Other Peers
- People do not seem to affect this behavior.

Are there Other Events or Conditions that immediately precede the problem behavior?

- A demand or request
- Unexpected changes in schedule or routine
- Consequences imposed for behavior
- Other:

## Consequences

**WHAT “payoff” does the student obtain when he/she demonstrates the problem behavior?**

### The Student Gains:

- Teacher/Adult attention
- Peer attention
- Desired item or activity
- Other:

- Control over others or situation
- Self-stimulation
- Other:

### The Student AVOIDS or ESCAPES:

- Teacher/Adult attention
- Peer attention
- Non-preferred activity, task, or setting
- Other:

- A difficult task or frustrating situation
- Other:
### Functional (Hypothesis) of Behavior:

<p>| |</p>
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</table>

### Function of Problem Behavior

After reviewing the data on antecedents and consequences, summarize the information below. Consider the following questions:

- **When:**
- **This student:**
- **In order to:**

### Replacement Behavior

Identify the replacement behavior. Remember that replacement behavior is not an absence of the problem behavior.

- **Rather than:**
- **This student will:**
- **This definition is:**
  - [ ] Observable
  - [ ] Measurable

### Meeting Participants:

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
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3 of 3
Indirect Assessment

• FAST
• MAS
• Interview
DATA Collection and Direct Observation

• Momentary Time Sampling
• Duration
• Frequency
• A-B-C recording
Momentary Time Sampling Form

Student's Name: ____________________  Teacher: ____________________

Subject/Period: ____________________  Date(s): ____________________

Behavior Definition (in specific, observable, measurable terms): ____________________

Total Observation Time: ____________  Length of each interval: ____________

<table>
<thead>
<tr>
<th>Date</th>
<th>Interval</th>
<th>Total times behavior occurred (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q or X</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>O or X</td>
<td>1</td>
<td>2</td>
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<tr>
<td>O or X</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**FREQUENCY CHART**

**Target Behavior:**

**Student:**

**Observer:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Date</th>
<th>Target Behavior</th>
<th>Time</th>
<th>Date</th>
<th>Target Behavior</th>
<th>Time</th>
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<th>Target Behavior</th>
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</table>
# Behavior Intervention Team
ABC Data Form

Student: __________________________  Teacher: __________________________  Date: ________-_____-______

<table>
<thead>
<tr>
<th>Time Begin-End</th>
<th>Target Behaviors</th>
<th>Place Where it occurred</th>
<th>Context/Activity</th>
<th>Antecedent Exactly what happened right before the behavior</th>
<th>Consequence What happened right after the behavior</th>
<th>Student Reaction</th>
</tr>
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<tbody>
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</table>
# Key for A-B-C Sheet

<table>
<thead>
<tr>
<th>Target BX</th>
<th>Place</th>
<th>Context/Activity</th>
<th>Antecedent</th>
<th>Consequence</th>
<th>Student Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Biting</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>B. Hitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Throwing things</td>
<td></td>
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</tr>
</tbody>
</table>
Functional Analysis

- THE GOLD STANDARD
  - BUT ONLY FOR A TRAINED PRACTITIONER IN A CLINICAL SETTING!!!!
References


References


References


References


