Functional Analysis

Individualized Behavior Intervention for Early Education
Behavior Assessments

• Purpose
  – Analyze and understand environmental factors contributing to challenging or maladaptive behaviors
  – Determine function of behaviors
  – Develop best interventions based on function
  – Determine best replacement behaviors to teach student
Types of Behavior Assessments

• Indirect assessment
  – Interviews and questionnaires

• Direct observation/Descriptive assessment
  – Observe behaviors and collect data on antecedents and consequences

• Functional analysis/Testing conditions
  – Experimental manipulations to determine function
What’s the Big Deal About Function?

- Function of behavior is more important than what the behavior looks like
- Behaviors can serve multiple functions
Why bother with testing?

- Current understanding of function is not correct
- Therefore, current interventions are not working
Why bother with testing?

- What the heck is the function?!
- Observations alone have not been able to determine function
Functional Analysis

• Experimental manipulations and testing for function of behavior

• Conditions
  – Test for Attention
  – Test for Escape
  – Test for Tangible
  – Test for Self Stimulatory
  – “Play” condition, which serves as the control
Test for Attention

• Attention or Self Stim?
• http://www.youtube.com/watch?v=dETNNYxXAOc&feature=related
• Ignore student, but stay near by
• Pay attention each time he screams, see if behavior increases
Test for Escape

• Escape or attention?
• http://www.youtube.com/watch?v=wb43xEVx3W0 (second part of video)
• Present work or task demands
• Remove demand each time she says “no” or giggles, see if behavior goes up
Test for Tangible

• Tangible or escape?

• [http://www.youtube.com/watch?v=wb43xEVx3W0](http://www.youtube.com/watch?v=wb43xEVx3W0) (first part of video)

• Give tangible access each time she tantrums, see if behavior increases (only done if indicated in other assessments)

• Used sparingly
Test for Self Stimulatory Behavior

• Ignore student completely and place self away from student
• Behavior occurs across sessions at similar levels
• Environmental changes do not affect rate of behavior
The Control Condition

• This condition is usually called “play”
• Student has access to highly preferred items/activities/attention and there are no demands
• Does behavior occur even in the play condition?
<table>
<thead>
<tr>
<th><strong>Target Behavior</strong></th>
<th>Screaming: Short burst of loud, screechy, high pitched screaming.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline rate</strong></td>
<td>Average of 1-2 times per minute throughout the day</td>
</tr>
<tr>
<td><strong>Pre-assessment function</strong></td>
<td>Attention or self stimulatory/sensory</td>
</tr>
<tr>
<td><strong>Pre-assessment intervention</strong></td>
<td>No set intervention. Usually ignored or intermittent contingent reprimand provided</td>
</tr>
</tbody>
</table>
Case Study 1

• Test conditions
  – Attention in test setting
  – Demand in test setting
  – Ignored in test setting
  – Play in test setting (control condition)
  – Play on playground (control condition)
  – Attention on playground
Results of Functional Analysis Testing

Results of Brief Functional Analysis

Test Conditions

Rate per minute

- attention
- demand
- Ignored in room
- play in room
- play outside
- play outside + contingent reprimand
Case Study 1

- Attention was not a function
- Self Stim/Sensory most likely function
- Contingent mild reprimand actually reduced behavior
- This can be incorporated into intervention
- Follow up: Screaming down to 1-2 times a day during class time
## Case Study 2

<table>
<thead>
<tr>
<th>Target behavior</th>
<th>Aggression: Punching, pinching, kicking, scratching, throwing objects at others. Often accompanied by laughter, verbal threats or verbal jargon.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline rate</td>
<td>Average of 5 episodes a day. Each episode can include 1-8 individual aggressive acts as outlined above.</td>
</tr>
<tr>
<td>Pre-assessment function</td>
<td>Attention seeking</td>
</tr>
<tr>
<td>Pre-assessment intervention</td>
<td>Ignored and demand was often delayed or changed</td>
</tr>
</tbody>
</table>
Case Study 2

• Test conditions
  – Attention
  – Escape
  – Play (control condition)
  – Two treatment conditions
    • Demands with token chart
    • Demands with Escape Extinction
Results of Functional Analysis Testing

![Graph showing frequency of aggressive acts during 10-minute sessions across different conditions.

- **High Demand with EXT (treatment):**
- **Attention:**
- **Demand with Tokens (treatment):**
- **Play:**
Case Study 2

• Attention was not the function
• Escape from demands was most likely function
• Ignoring student and delaying work was actually reinforcing the aggression
• Follow up: Aggression down to average of one episode a month. Zero rates since start of new school year.