A Component Analysis of Feedback

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Efficient Training Strategies

- Shapiro et al. (2014)
  - 6/8 participants
    - Self-instructional package
  - 2/8 participants
    - Self-instructional package + feedback
Efficient Training Strategies

- Shapiro et al. (2014)
  - 6/8 participants
    - Self-instructional package
  - 2/8 participants
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  - Trained 8 behavioral technicians
    - Single feedback session
      - Review video and data sheet
      - Corrective feedback
      - Role play
Efficient Training Strategies

- Shapiro et al. (2014)
  - 6/8 participants
    - Self-instructional package
  - 2/8 participants
    - Self-instructional package + feedback

  - Trained 8 behavioral technicians
    - Our feedback package
      - Review data sheet
      - Corrective feedback
      - Model + strategy
Feedback Limitations

- Trained professional still required
Feedback Limitations

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- May not be practical in applied setting
  - Interrupt client sessions
Feedback Limitations

- Trained professional still required
- May not be practical in applied setting
  - Interrupt client sessions
- Identify
  - Most efficient
  - Least intrusive
Feedback Packages

- Balcazar et al., (1985); Alvero et al., (2001)
  - No conclusions regarding effects of specific components
Feedback Packages

- Balcazar et al. (1985); Alvero et al. (2001)
  - No conclusions regarding effects of specific components
- Few experimental evaluations
  - Johnson (2013)
    - Objective vs. Evaluative
      - Both needed for maximum gains
- Still need to identifying least intrusive, effective components
Objective

- Additive component analysis to identify
  - Least intrusive, effective component

- Most efficient procedure when a self-instructional package is not sufficient
Method

- **Design**
  - Multiple baseline across participants

- **Target behavior**
  - Percentage correct implementation
    - Paired-stimulus (PS) preference assessment

- **Mastery criteria**
  - 90% or above across 2 consecutive sessions
Method

- Participants
  - 6 undergraduate students
  - No formal training
- Setting
  - Observation rooms with two-way mirrors
Reliability

- Independent observers
  - In-vivo
  - Videotaped sessions
- Response measurement
  - Total accuracy
  - Target responses

Total accuracy = 94% (range, 76%-100%)
Target responses = 94% (range, 76%-100%)
Procedure

- Baseline
  - Written instructions
- Self-Instructional Package
  - Enhanced written instructions
- Feedback
  - FB1 = rubric
  - FB2 = rubric + performance
  - FB3 = rubric + performance + model/strategy
- Feedback delivered immediately prior to next session
<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Operational Definition</th>
</tr>
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<tbody>
<tr>
<td>1. Stimulus presentation</td>
<td>Placed two items on the table in front of the consumer</td>
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<tr>
<td>2. Stimulus placement</td>
<td>Placed the two items 1 foot in front of consumer and 1 foot apart</td>
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<tr>
<td>3. Postselection response</td>
<td>Removed the unselected item before recording data</td>
</tr>
<tr>
<td>4. Response blocking</td>
<td>Blocked approaches to more than one item or an item that is not in your pool of items by reaching your hands out to the consumer’s hands</td>
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<td>5. Trial termination</td>
<td>Ended the trial if the consumer did not select an item within 5 seconds after you delivered the verbal prompt</td>
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FB 3

- Model plus strategies for correct responding
- Example:

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Percentage of Trials Implemented Correctly

Sessions

Baseline | EWI | FB1 | FB2 | FB3

Ben

Jerry

Mike

Percentage of Trials Implemented Correctly
Results

- FB2 in additive sequence
  - 2/3 met mastery
- FB2 immediately after self-instructional package
  - All met mastery
- When self-instructional packages are not enough
  - Rubric outlining target behaviors
  - Accuracy of performance
Implications

- Efficiency
  - 2 components
Implications

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  - 2 components

- Practicality
  - Average session duration = 2 minutes
  - Average sessions to criterion = 3 sessions
Implications

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  - 2 components

- Practicality
  - Average session duration = 2 minutes
  - Average sessions to criterion = 3 sessions

- No need to interrupt client sessions
Limitations

- Rubric + performance not effective for one participant
- Self-instructional package sessions were followed by feedback
- Social validity
- Required professional to be present
Future Research

- Can FB2 be delivered discretely?
  - If so, examine whether in-person delivery necessary
- Evaluate with other procedures
- Continue to conduct component analyses of feedback
Selected References


