



# ABACS, LLC

ABA CONSULTATION & SERVICES

## Conducting Functional Analyses in Home-Based Settings

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# Pre-Test

- ▶ Please complete the pre-test

# Agenda

- ▶ Pre-Test
- ▶ Group Introductions
- ▶ Introduction to Conducting FAs in Home-Based Settings
- ▶ Considerations for Conducting FAs in Home-Based Settings
- ▶ Designing your Functional Analysis
- ▶ Analyzing and Supporting FA Outcomes
- ▶ Case Studies
- ▶ Post-Test

# Group Introductions

- ▶ Where do you work?
- ▶ What is your role?
- ▶ Why did you sign up for this workshop?
- ▶ What experience do you have with functional analyses?
  - ▶ What literature are you familiar with?
  - ▶ Have you conducted FAs before, and what was your role?

# Introduction

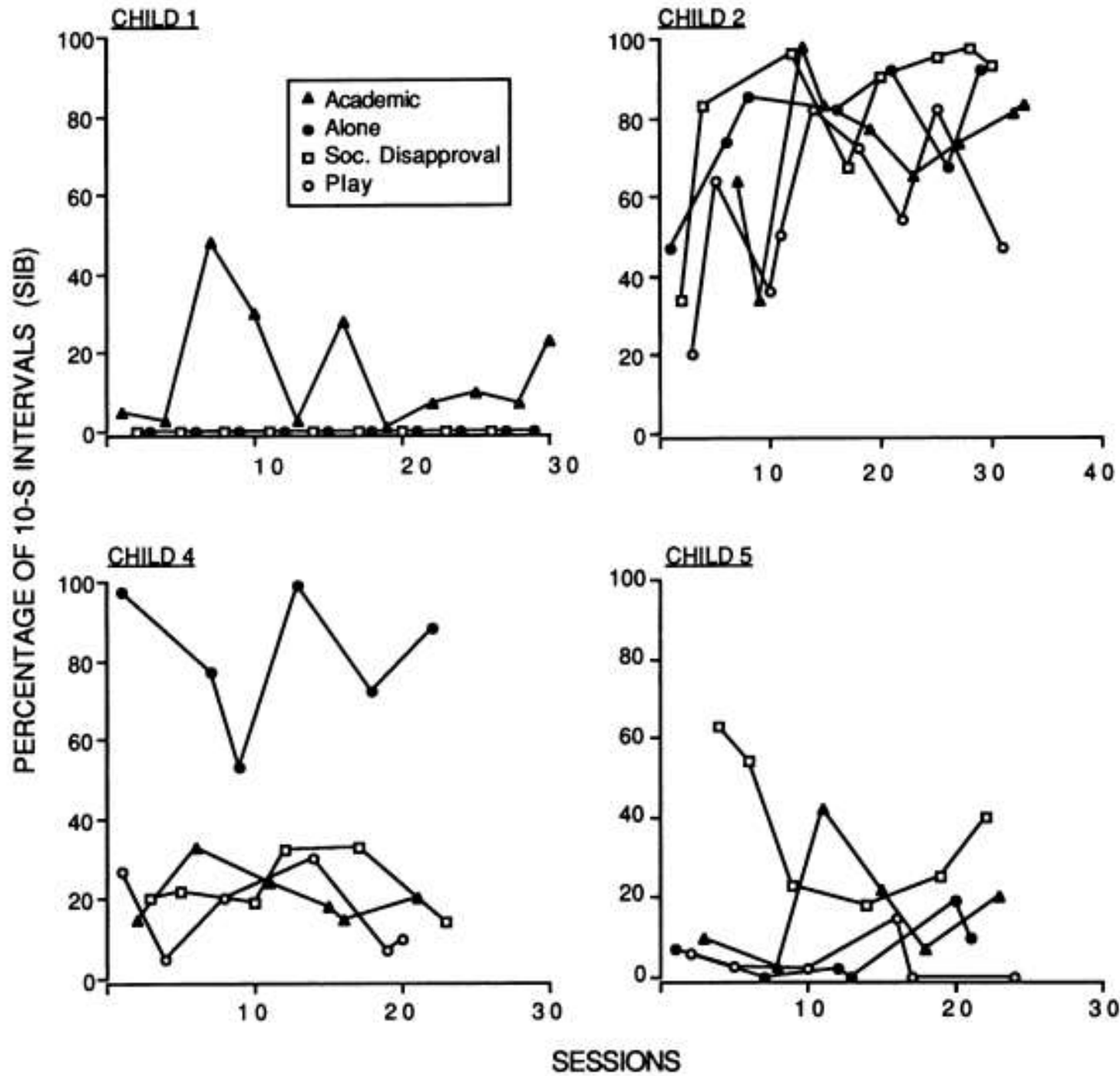
- ▶ Functional analysis (FA) is a powerful tool to assess challenging behavior
  - ▶ Systematic manipulation of antecedent and consequent variables
  - ▶ Experimentally determine function
  - ▶ Lead to effective, function-based treatments
- ▶ Meta-analysis Data

# Introduction

- ▶ FA is only experimental method to determine function of behavior
  - ▶ Important to extend to home-based settings
- ▶ FAs have been modified from standard FA
  - ▶ Modifications increase efficiency in conducting FAs

# Introduction

Design Modifications	Description
Standard FA	Four conditions: attention, escape, control, and alone  15-minute sessions  Average of 30 sessions per participant per FA



Iwata et al., (1982/1994)



# Introduction

## STANDARD FA

Pros

Cons

# Introduction

## STANDARD FA

### Pros

Strong demonstration of experimental control

### Cons

# Introduction

## STANDARD FA

### Pros

Strong demonstration of experimental control

### Cons

Time-intensive to implement

# Introduction

## STANDARD FA

### Pros

Strong demonstration of experimental control

### Cons

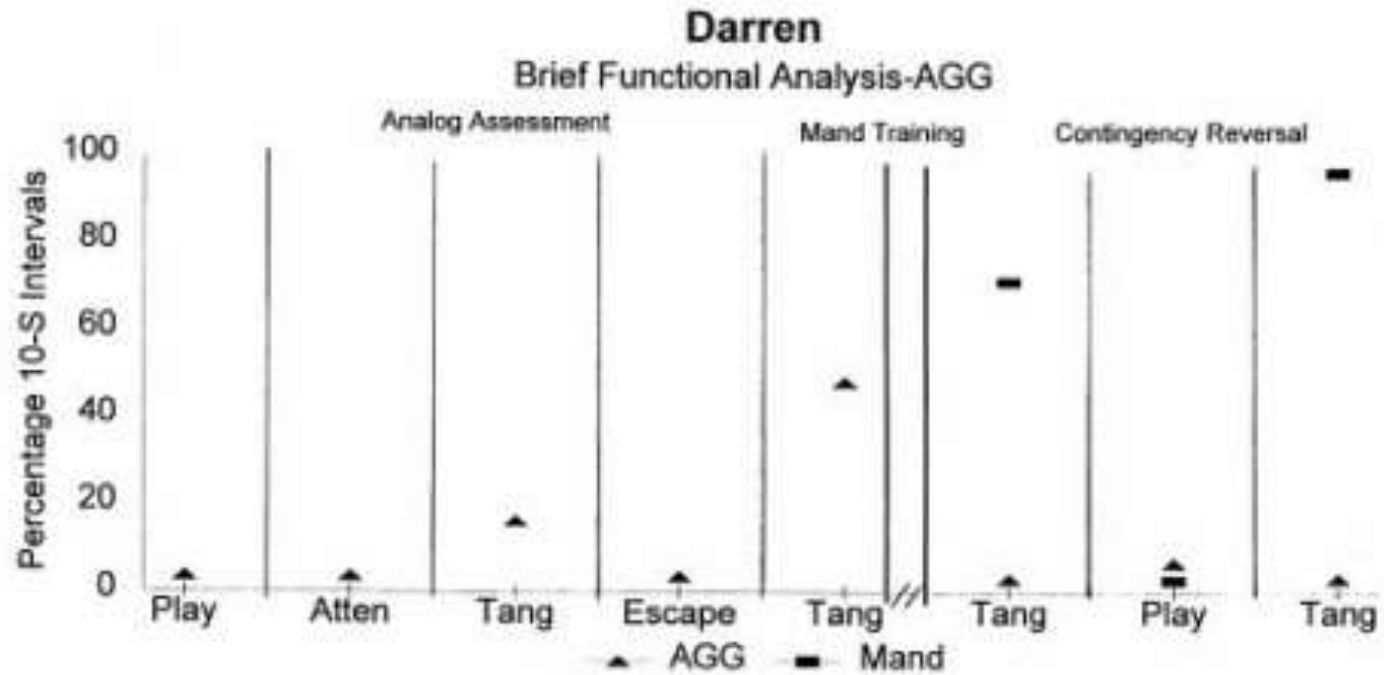
Time-intensive to implement  
  
Many repetitions of reinforcement for challenging behavior

# Introduction

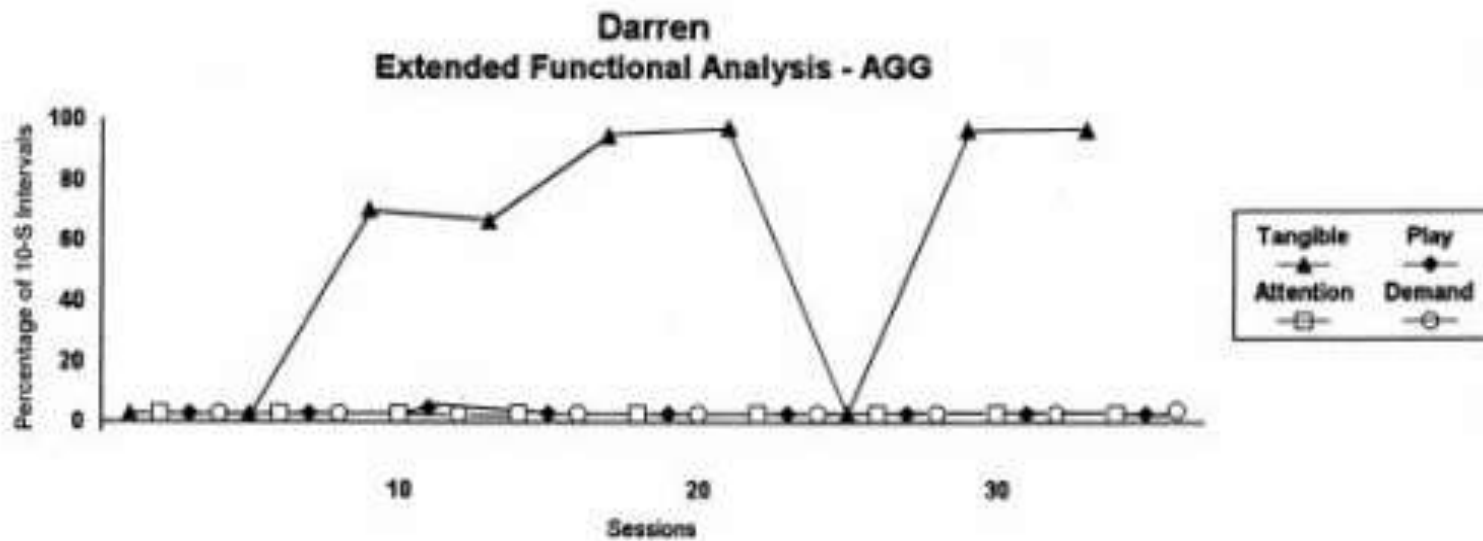
- ▶ Have you run a standard FA?

# Introduction

Design Modifications	Description
Brief FA	Definition is inconsistent in the literature  Same number of conditions as standard FA but fewer sessions per condition (Hanley, Iwata, & McCord, 2003)



Tincani,  
Castrogiavanni, and  
Axelrod (1999)



# Introduction

## BRIEF FA

Pros

Cons



# Introduction

## BRIEF FA

Pros

Less time-intensive

Cons

# Introduction

## BRIEF FA

### Pros

Less time-intensive

Supported in the literature

### Cons

# Introduction

## BRIEF FA

### Pros

Less time-intensive

Supported in the literature

Less reinforcement of challenging behavior

### Cons

# Introduction

## BRIEF FA

### Pros

Less time-intensive

Supported in the literature

Less reinforcement of challenging behavior

### Cons

Weaker demonstration of experimental control

# Introduction

## BRIEF FA

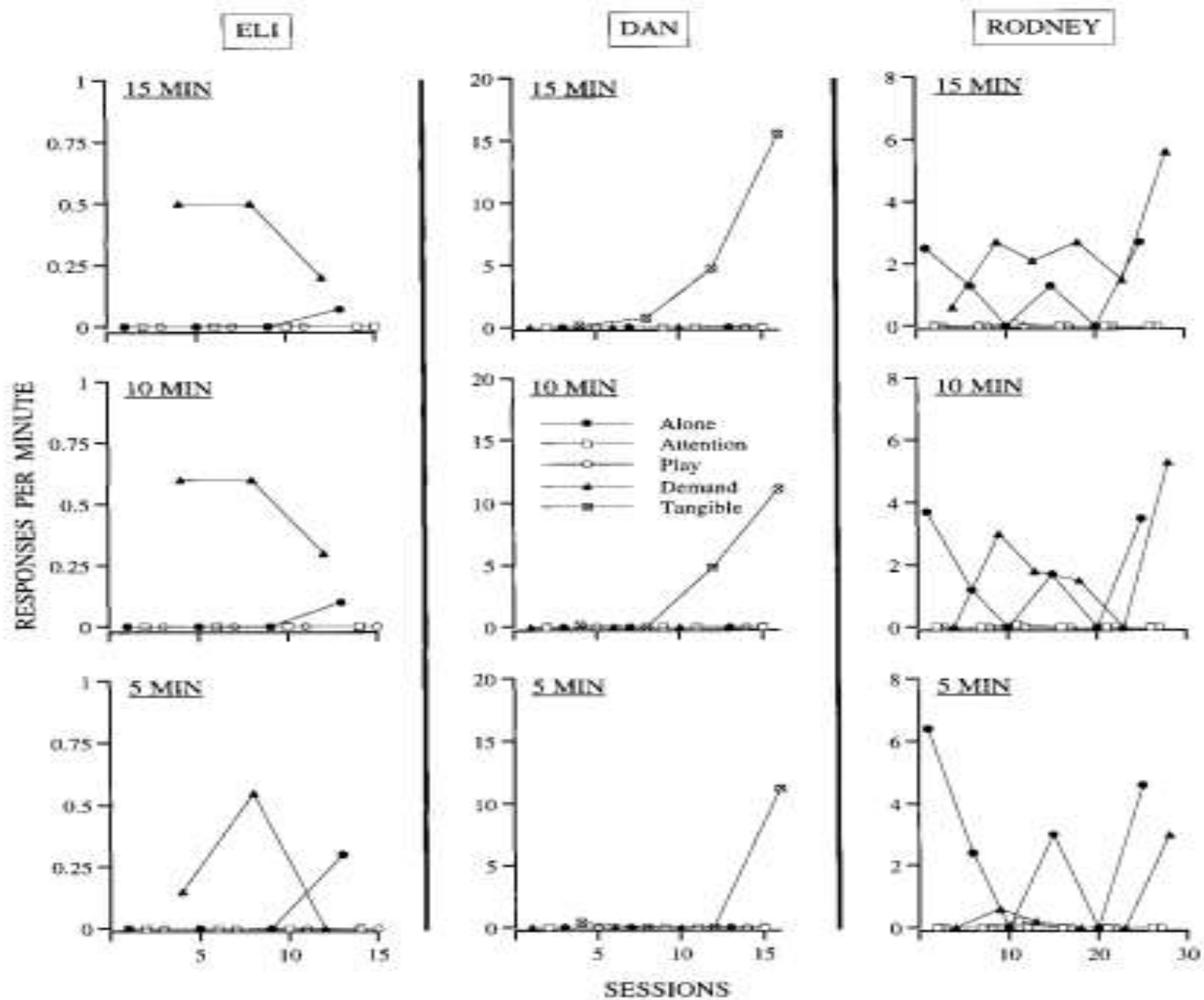
Pros	Cons
Less time-intensive	Weaker demonstration of experimental control
Supported in the literature	Lack of discrimination between contingencies
Less reinforcement of challenging behavior	

# Introduction

- ▶ Have you run a brief FA?

# Introduction

Design Modifications	Description
Modified Standard FA  (for the purposes of this presentation)	Duration of analysis is reduced <ul style="list-style-type: none"><li>- Shortened sessions (5-10 min)</li><li>- Reduced number of sessions</li><li>- Fewer conditions</li></ul>



Wallace and Iwata (1999)

Figure 2. The three cases showing disagreement between interpretations based on 15- and 5-min session durations.



# Introduction

## STANDARD (MODIFIED) FA

Pros

Cons

# Introduction

## STANDARD (MODIFIED) FA

Pros	Cons
Less time-intensive	

# Introduction

## STANDARD (MODIFIED) FA

Pros	Cons
Less time-intensive  Supported in the literature	

# Introduction

## STANDARD (MODIFIED) FA

### Pros

Less time-intensive

Supported in the literature

Less reinforcement of challenging behavior

### Cons

# Introduction

## STANDARD (MODIFIED) FA

Pros	Cons
Less time-intensive	Weaker demonstration of experimental control
Support in the literature	
Less reinforcement of challenging behavior	

# Introduction

## STANDARD (MODIFIED) FA

Pros	Cons
Less time-intensive	Weaker demonstration of experimental control
Support in the literature	Lack of discrimination between contingencies
Less reinforcement of challenging behavior	

# Introduction

## STANDARD (MODIFIED) FA

Pros	Cons
Less time-intensive	Weaker demonstration of experimental control
Support in the literature	Lack of discrimination between contingencies
Less reinforcement of challenging behavior	IRT and session duration

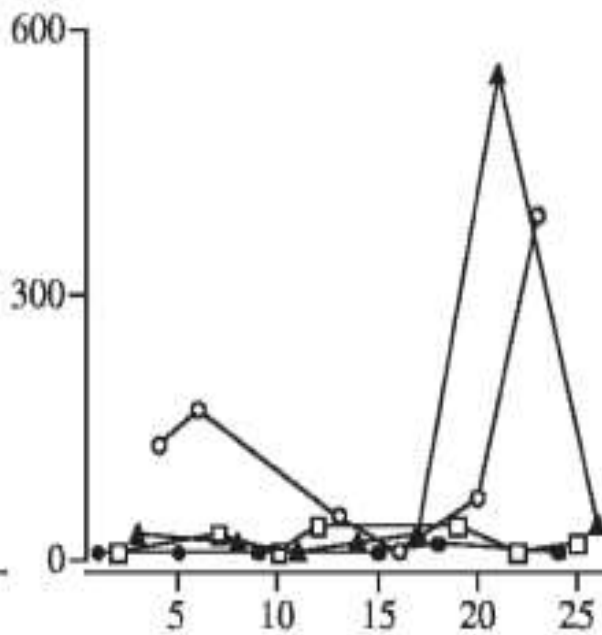
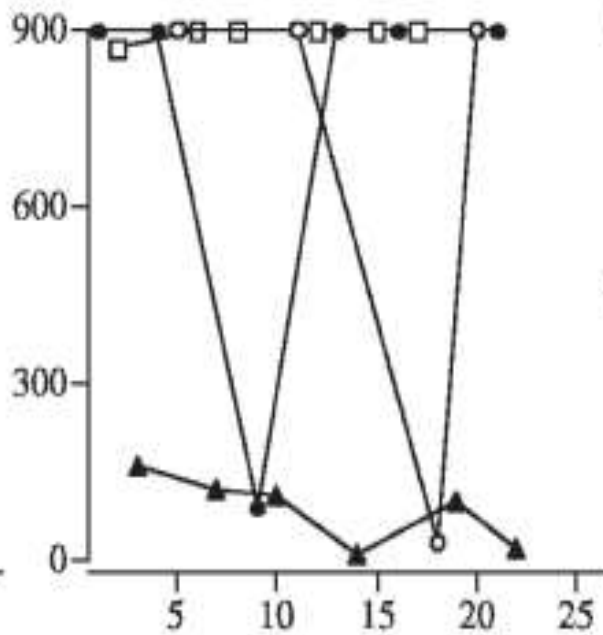
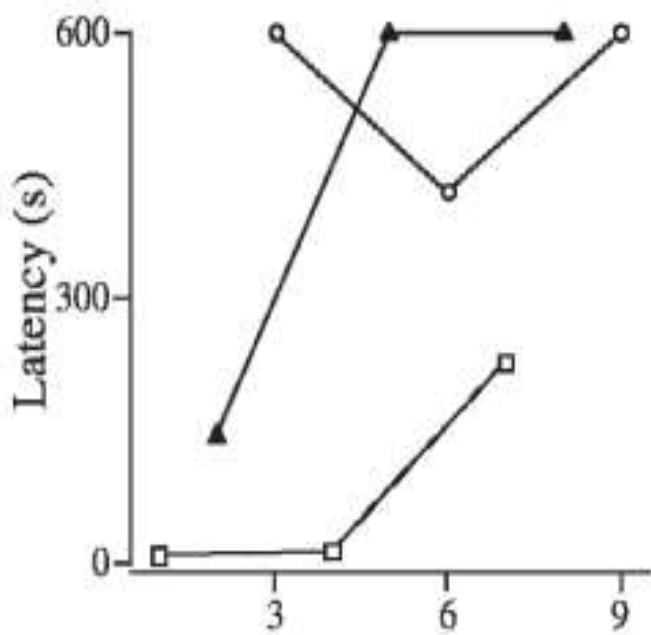
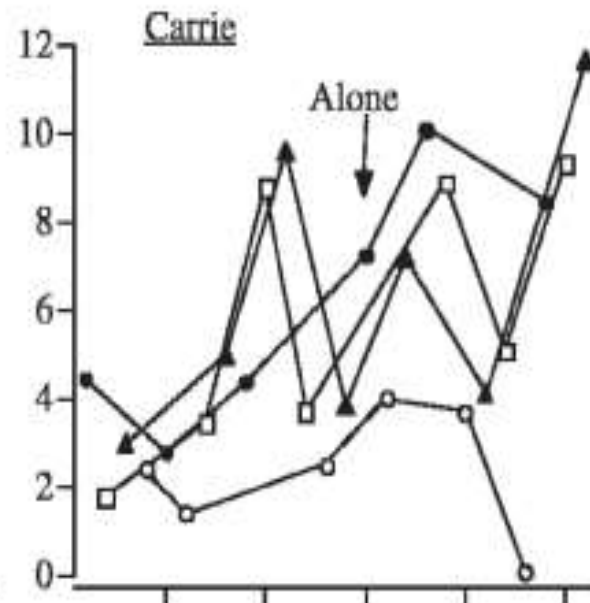
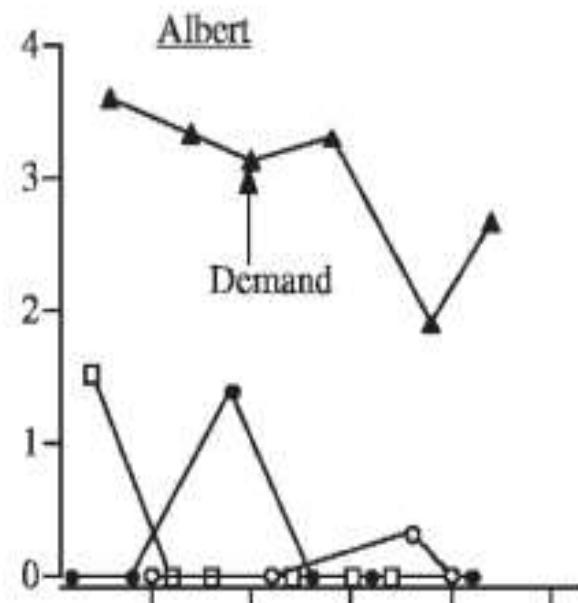
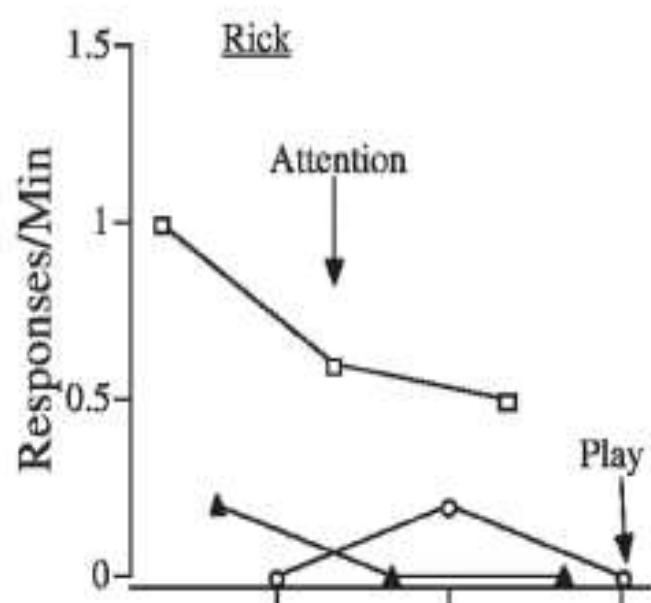
# Introduction

- ▶ Have you run a Standard (Modified) FA?



# Introduction

Design Modifications	Description
Latency FA	Latency to the first instance of the target behavior is measured



Sessions

Thomason-Sassi  
et al. (2011)

# Introduction

## LATENCY FA

Pros

Cons

# Introduction

## LATENCY FA

### Pros

Less time-intensive

### Cons

# Introduction

## LATENCY FA

### Pros

Less time-intensive

Supported in the literature

### Cons

# Introduction

## LATENCY FA

### Pros

Less time-intensive

Supported in the literature

Challenging behavior reinforced one time per session

### Cons

# Introduction

## LATENCY FA

### Pros

Less time-intensive

Supported in the literature

Challenging behavior reinforced one time per session

### Cons

Weaker demonstration of experimental control

# Introduction

## LATENCY FA

### Pros

Less time-intensive

Supported in the literature

Challenging behavior reinforced one time per session

### Cons

Weaker demonstration of experimental control

Not ideal for low-frequency behaviors

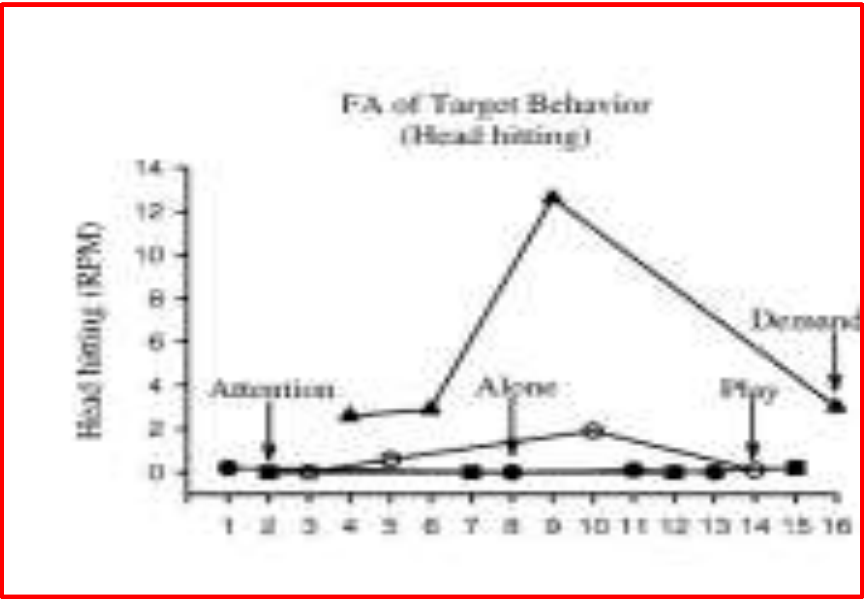


# Introduction

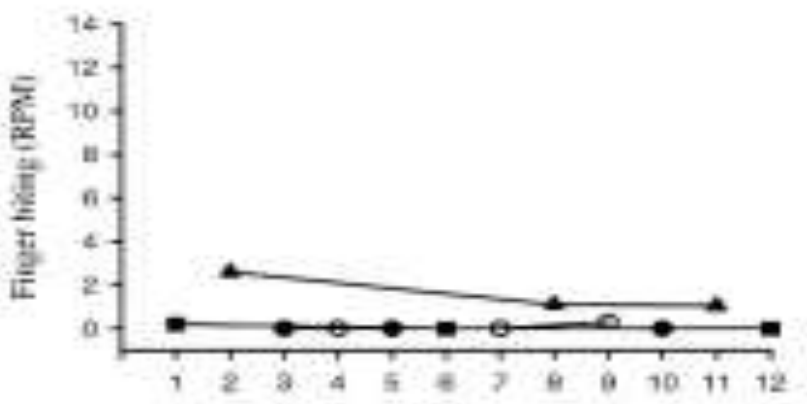
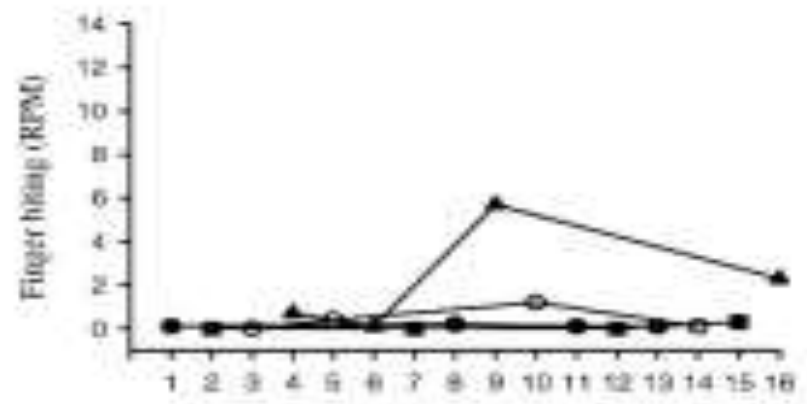
- ▶ Have you run a Latency FA?

# Introduction

Design Modifications	Description
Precursor FA	The target behavior itself is not assessed. Precursor behaviors (behaviors that reliably precede the target behavior) are assessed.



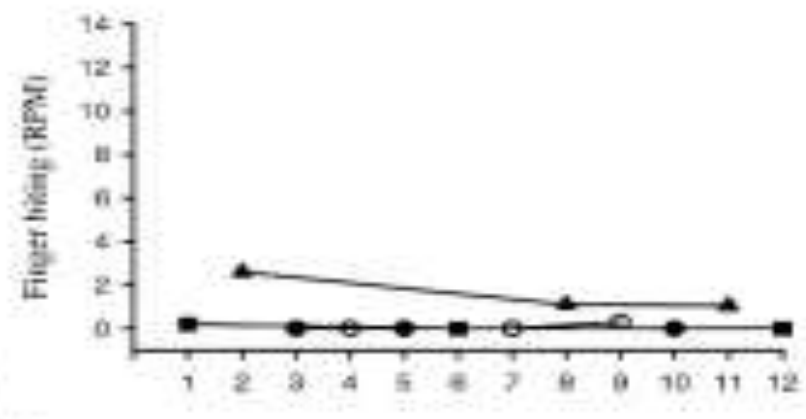
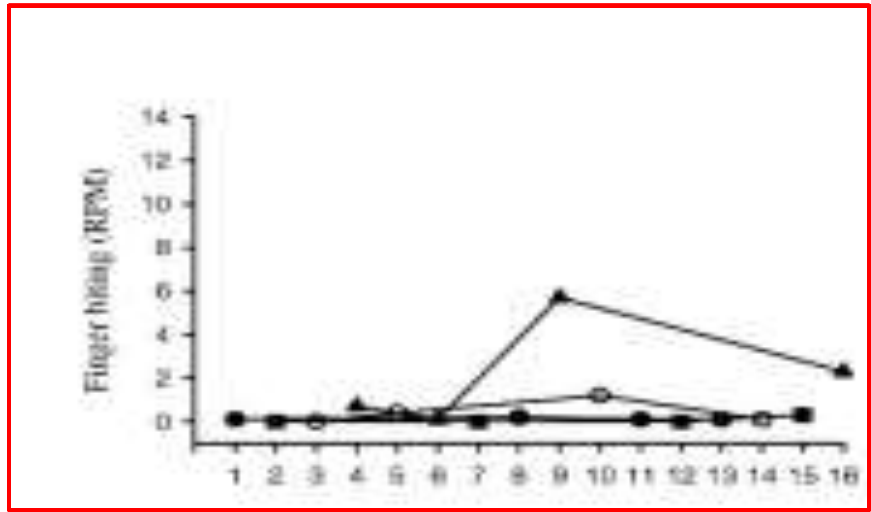
Herscovitch et al. (2009)



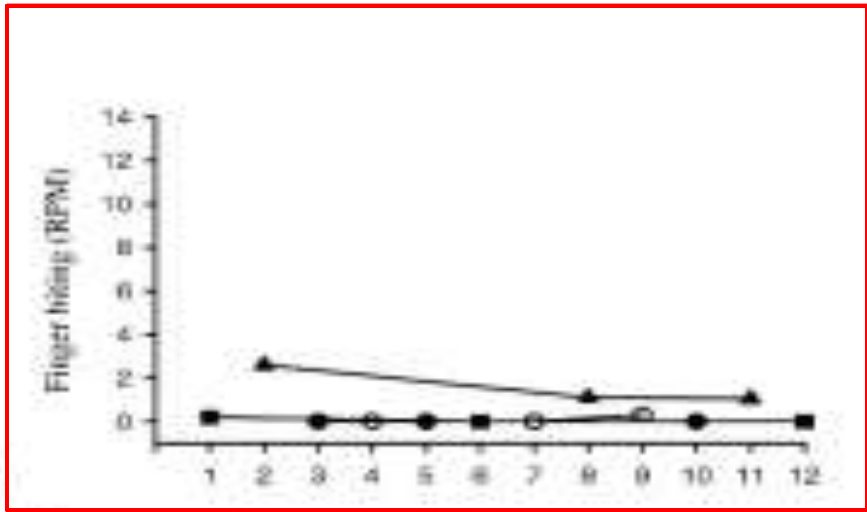
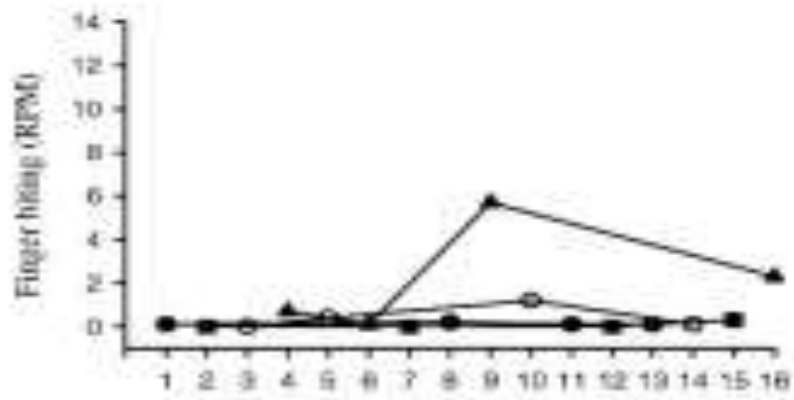
Sessions



Herscovitch et al. (2009)

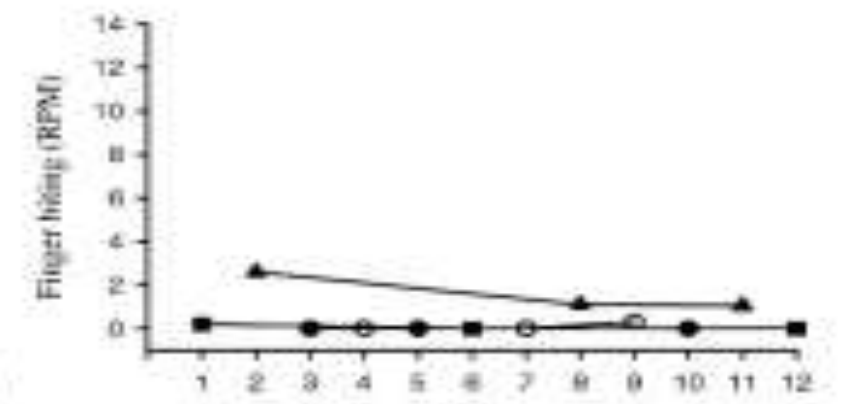
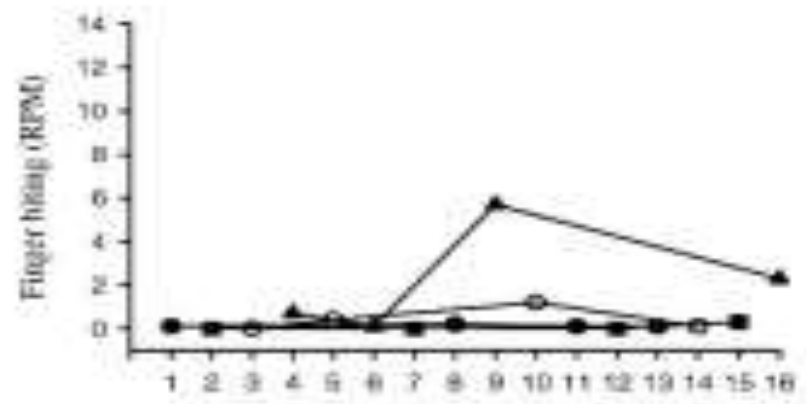
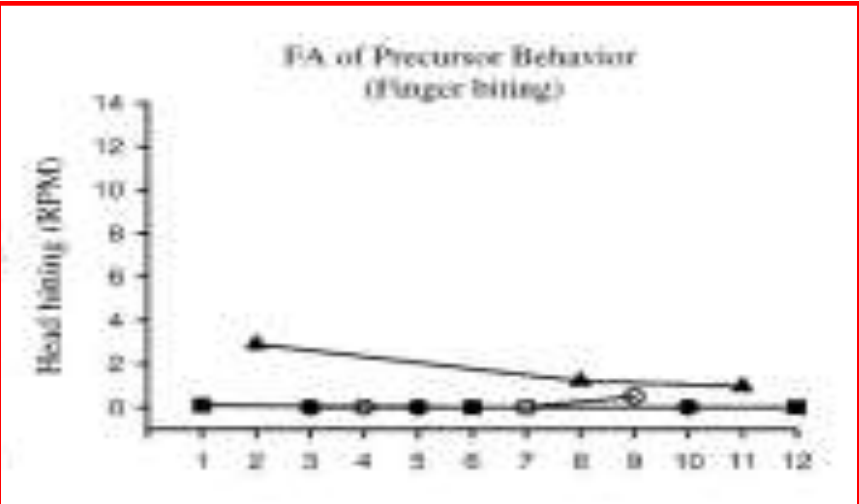


Sessions



Sessions

Herscovitch  
et al. (2009)



Sessions

Herscovitch et al. (2009)

# Introduction

## PRECURSOR FA

Pros

Cons

# Introduction

## PRECURSOR FA

Pros

Supported in the literature

Cons



# Introduction

## PRECURSOR FA

### Pros

Supported in the literature

May result in fewer instances of the target behavior

### Cons

# Introduction

## PRECURSOR FA

### Pros

Supported in the literature

May result in fewer instances of the target behavior

No programmed reinforcement of the target behavior

### Cons

# Introduction

## PRECURSOR FA

### Pros

Supported in the literature

May result in fewer instances of the target behavior

No programmed reinforcement of the target behavior

### Cons

Must have identifiable and reliable precursor behaviors

# Introduction

## PRECURSOR FA

### Pros

Supported in the literature

May result in fewer instances of the target behavior

No programmed reinforcement of the target behavior

### Cons

Must have identifiable and reliable precursor behaviors

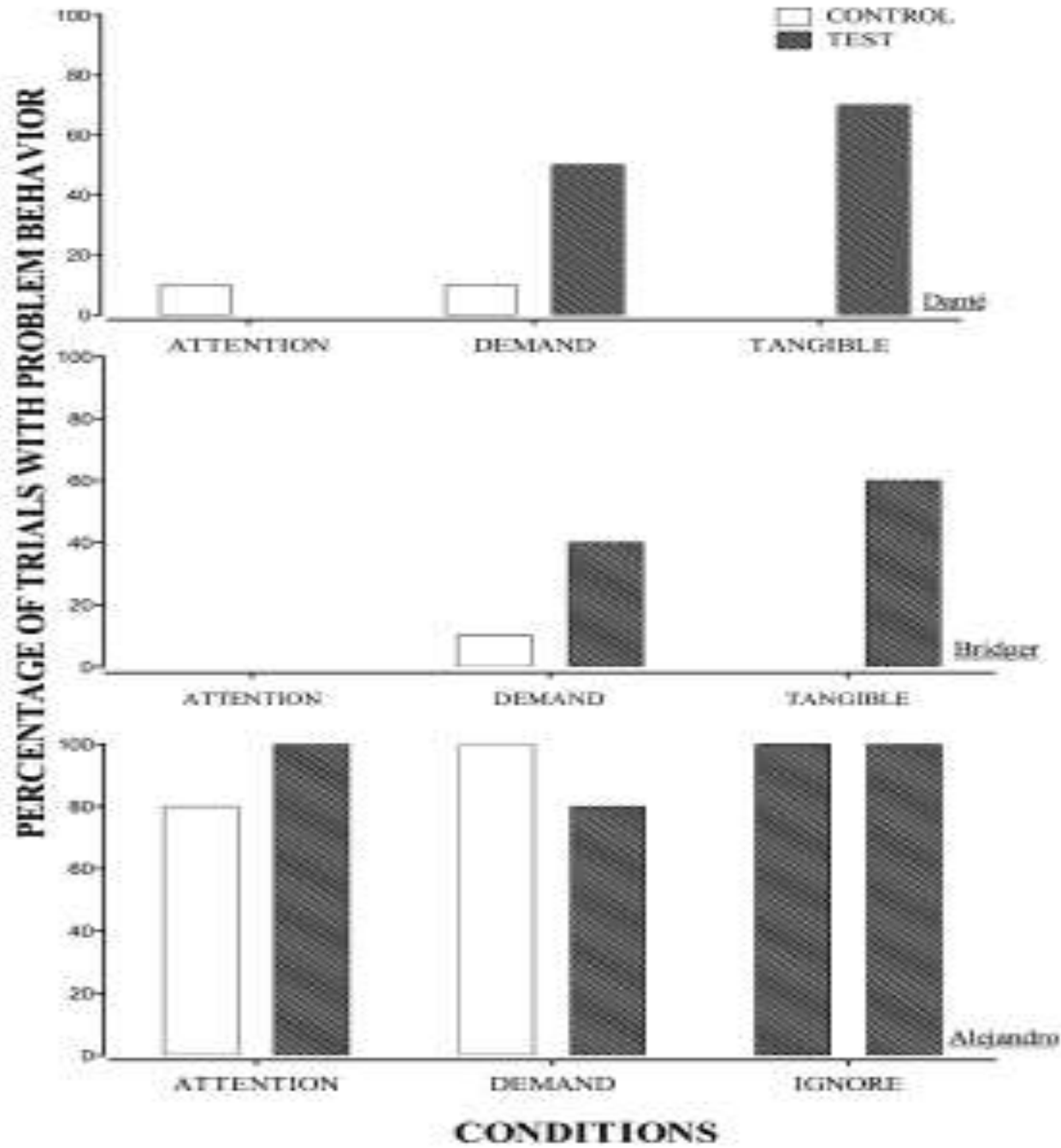
Social validity concerns for caregivers

# Introduction

- ▶ Have you run a Precursor FA?

# Introduction

Design Modifications	Description
Trial-Based FA	<p>The discriminative stimulus (SD) or establishing operation (EO) is presented one trial at a time.</p> <p>Measures percentage of trials with challenging behavior</p>



Bloom, Lambert,  
Dayton, and  
Samaha (2013)

# Introduction

## TRIAL-BASED FA

Pros

Cons



# Introduction

## TRIAL-BASED FA

### Pros

Less time-intensive

### Cons

# Introduction

## TRIAL-BASED FA

### Pros

Less time-intensive

Supported in the literature  
- Applied settings

### Cons

# Introduction

## TRIAL-BASED FA

### Pros

Less time-intensive

Supported in the literature  
- Applied settings

Less reinforcement of  
challenging behavior

### Cons

# Introduction

## TRIAL-BASED FA

### Pros

Less time-intensive

Supported in the literature  
- Applied settings

Less reinforcement of  
challenging behavior

### Cons

Weaker demonstration of  
experimental control

# Introduction

## TRIAL-BASED FA

Pros	Cons
Less time-intensive	Weaker demonstration of experimental control
Supported in the literature - Applied settings	May delay analysis and treatment if low-frequency behavior
Less reinforcement of challenging behavior	

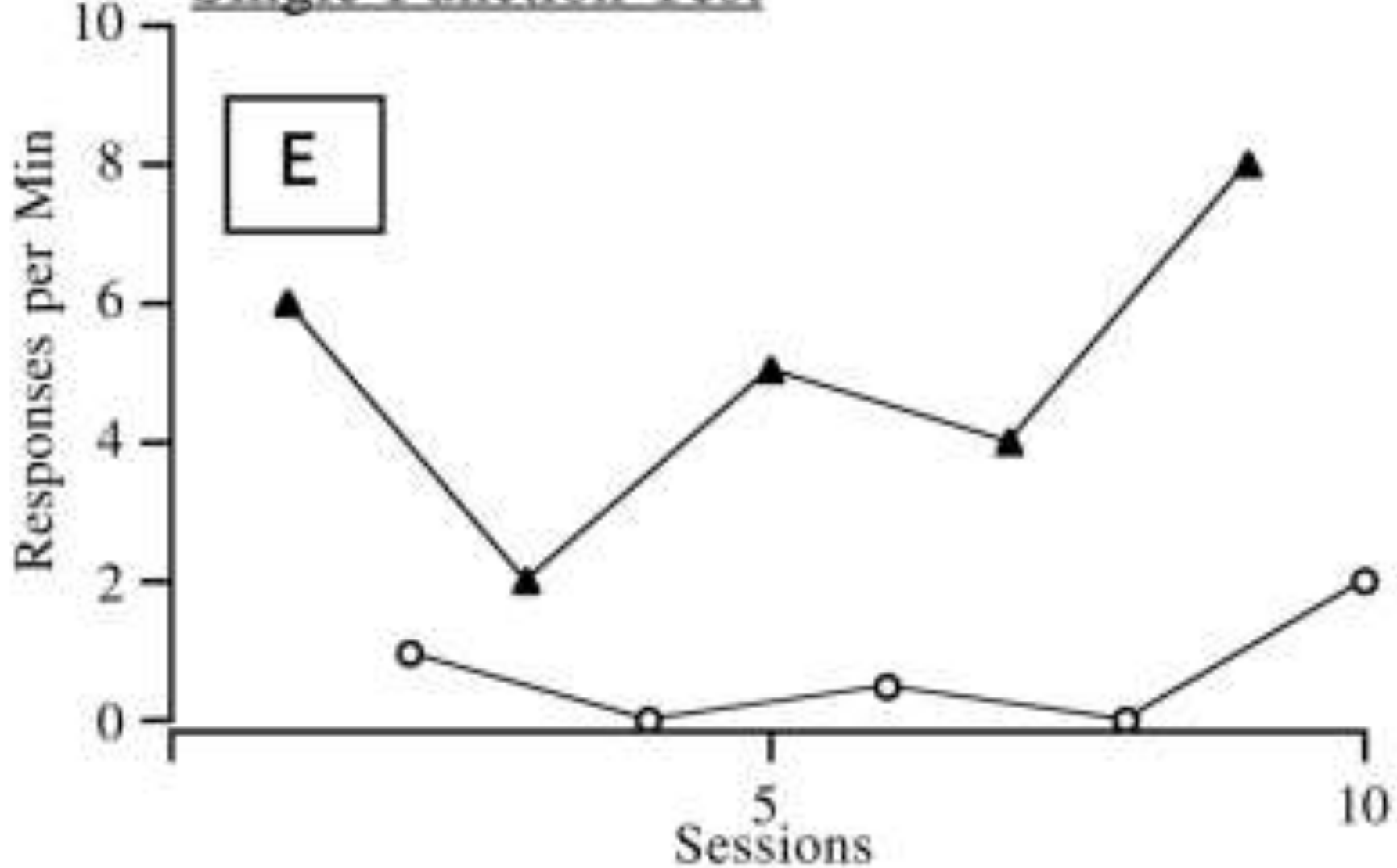
# Introduction

- ▶ Have you run a Trial-Based FA?

# Introduction

Design Modifications	Description
Single-Function	<p>Alternates between one test and one control conditions</p> <p>Only one function is targeted in the test condition</p>

# Single-Function Test



Iwata and Dozier  
(2008)



# Introduction

## SINGLE-FUNCTION FA

Pros

Cons

# Introduction

## SINGLE-FUNCTION FA

### Pros

Less time-intensive

### Cons

# Introduction

## SINGLE-FUNCTION FA

### Pros

Less time-intensive

Supported in the literature

### Cons

# Introduction

## SINGLE-FUNCTION FA

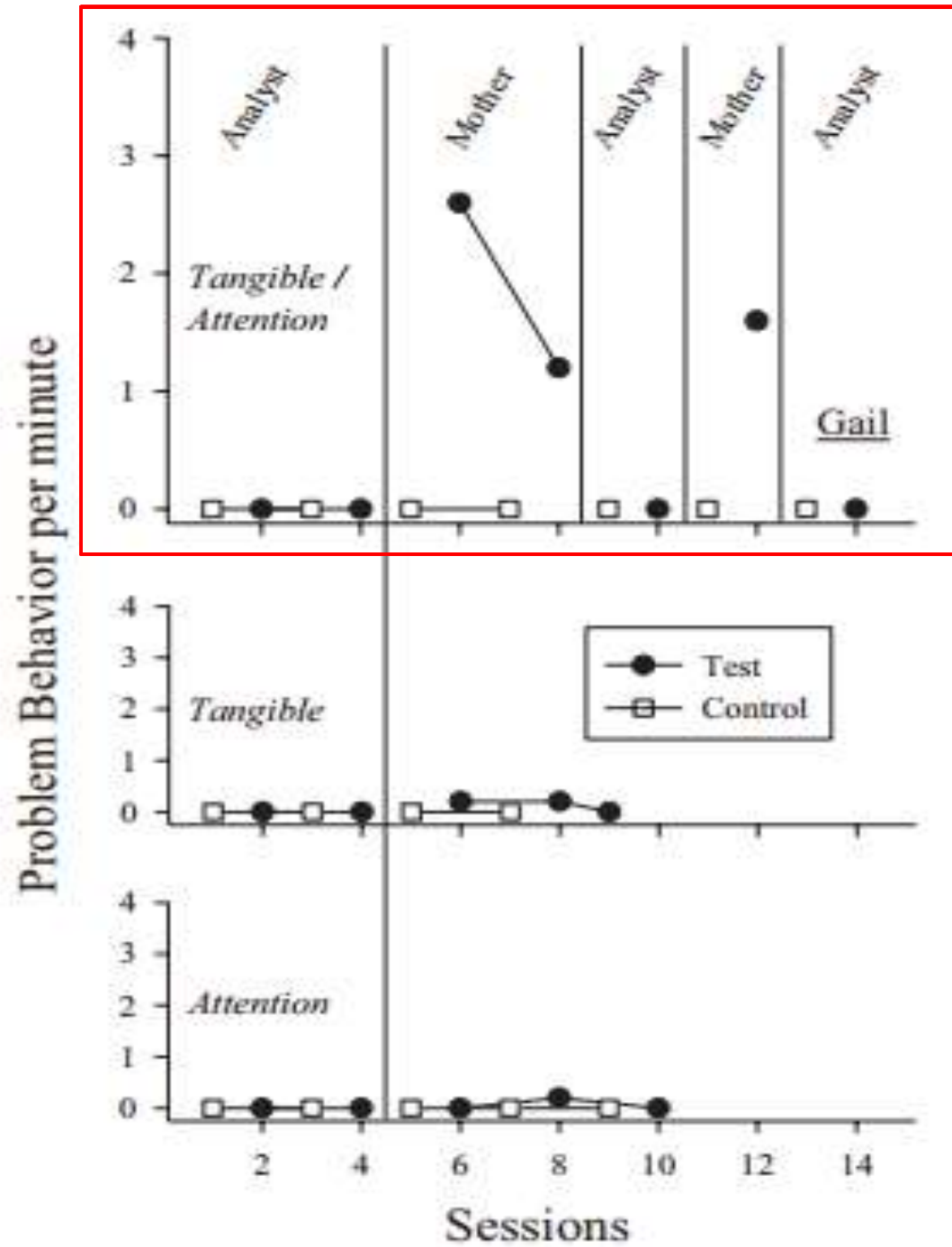
Pros	Cons
Less time-intensive	Only tests one function
Supported in the literature	

# Introduction

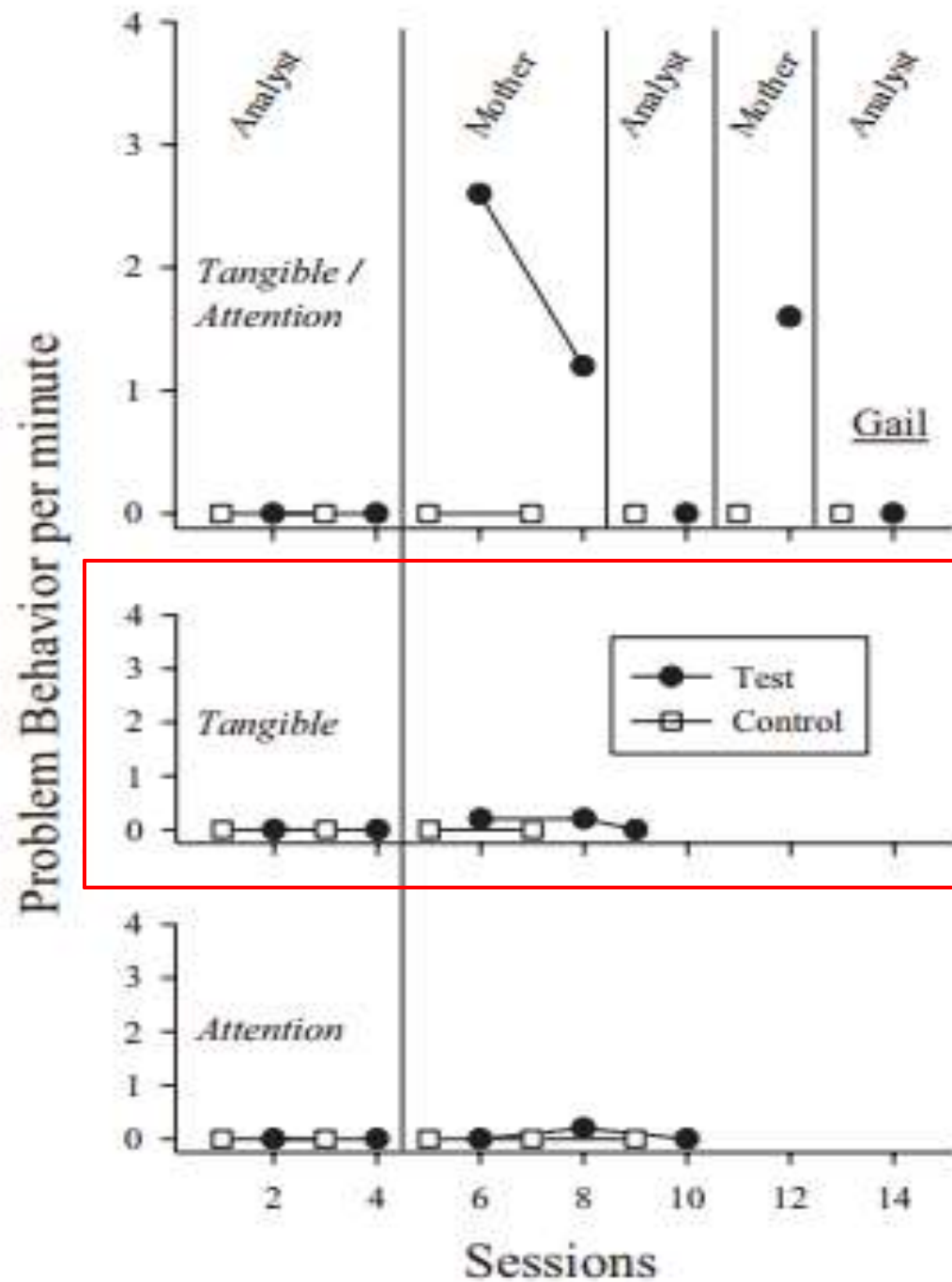
- ▶ Have you run a Single-Function FA?

# Introduction

Design Modifications	Description
Synthesized FA	<p>Alternates between test and control conditions</p> <ul style="list-style-type: none"><li>- Control: Presentation of hypothesized reinforcer(s)</li><li>- Test: Removal of hypothesized reinforcer(s)</li></ul> <p>Test condition tests for multiple functions in one condition</p>

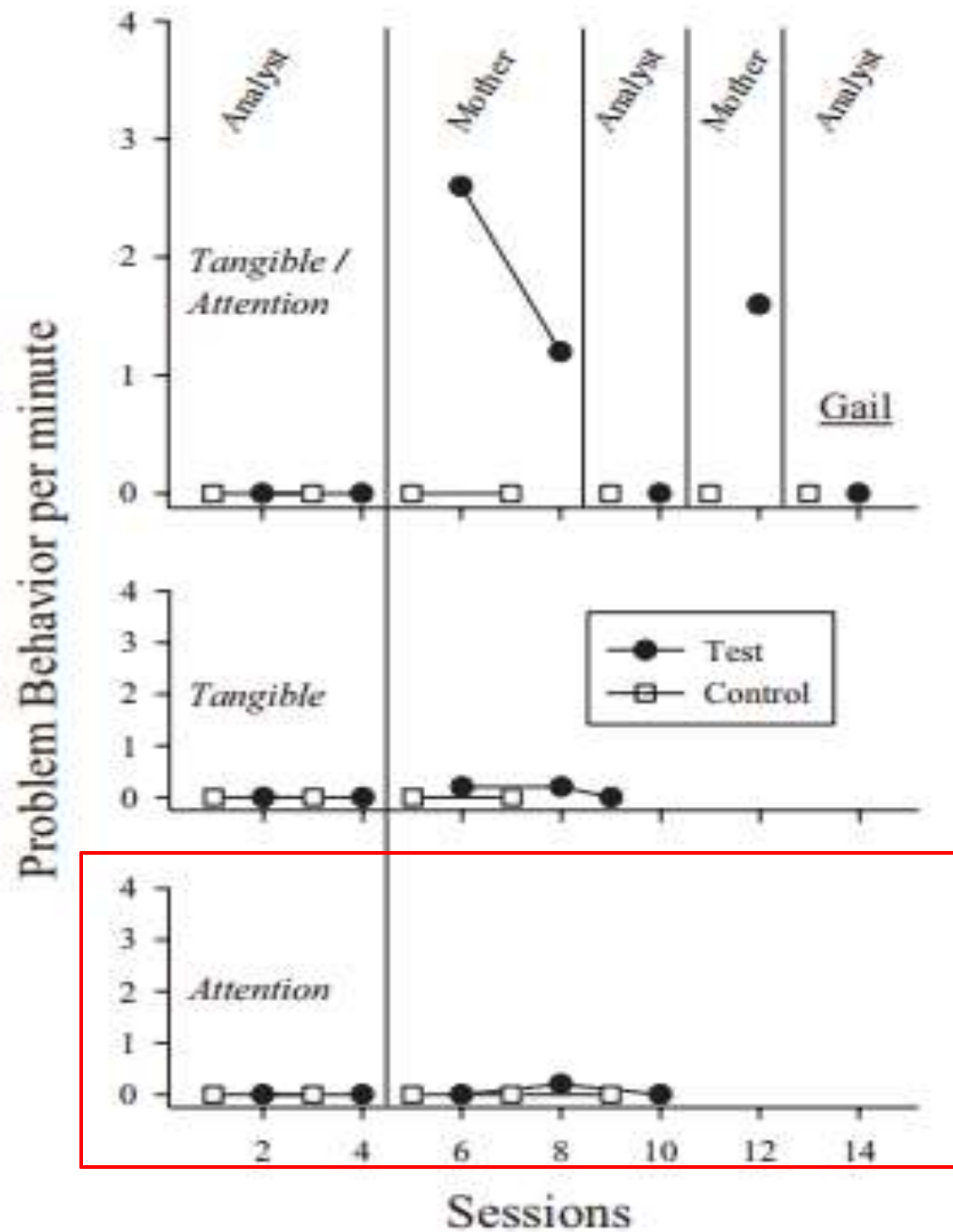


Hanley, Jin,  
Vanselow, and  
Hanratty (2014)

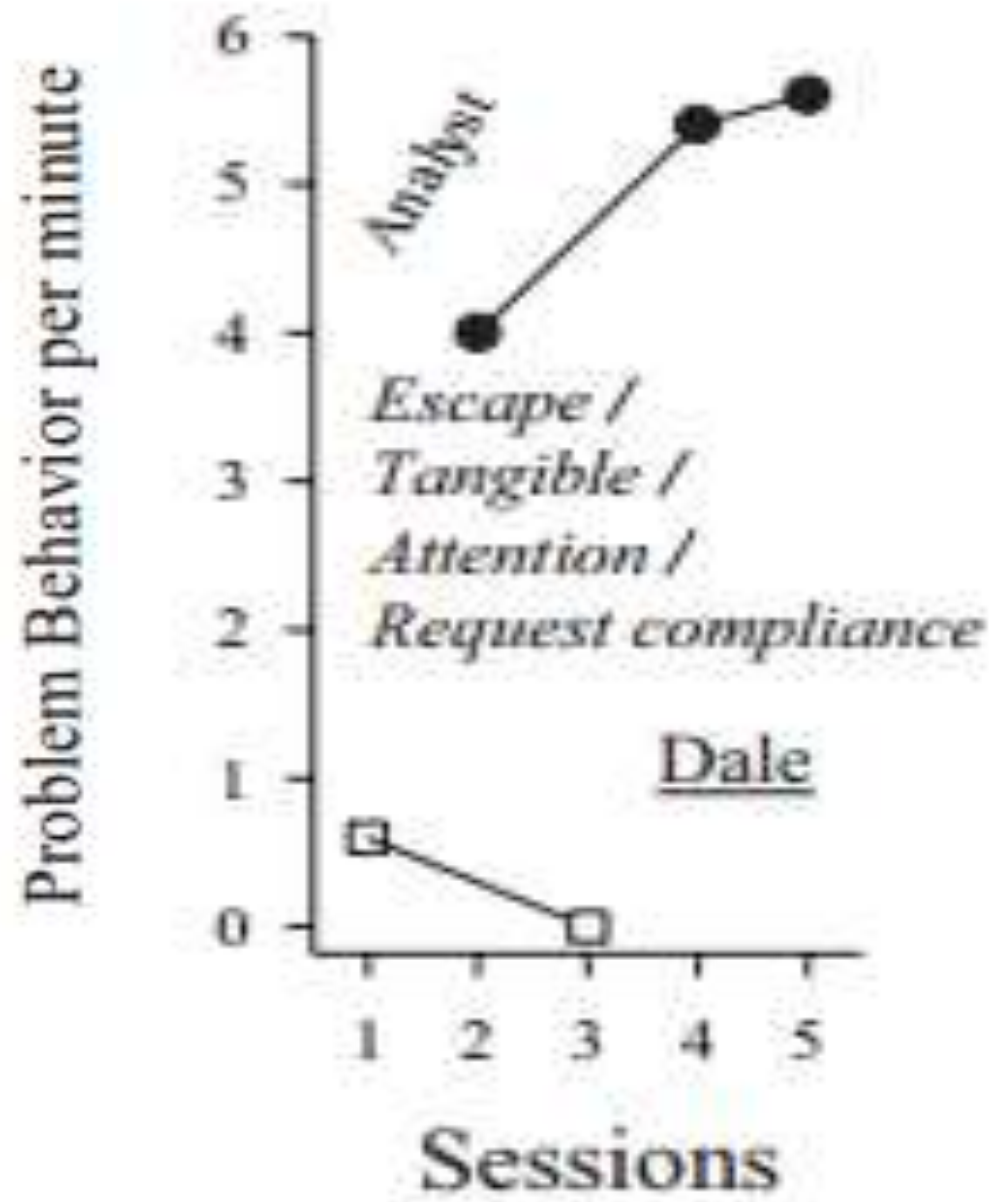


Hanley, Jin,  
Vanselow, and  
Hanratty (2014)



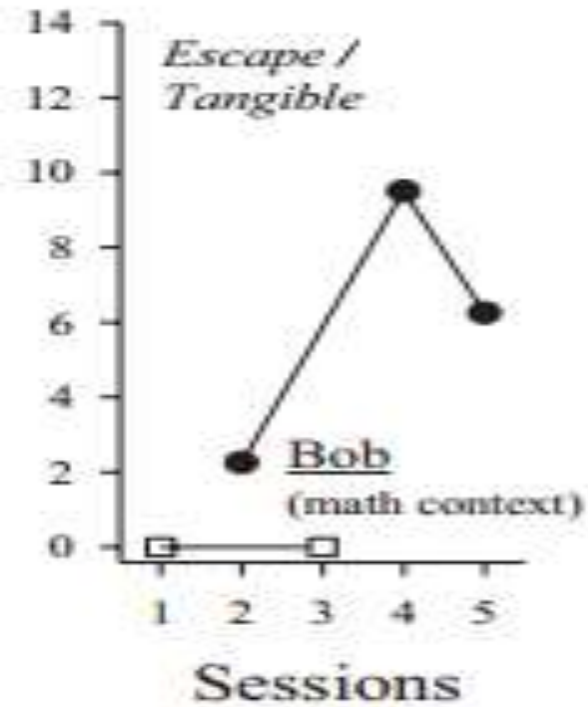
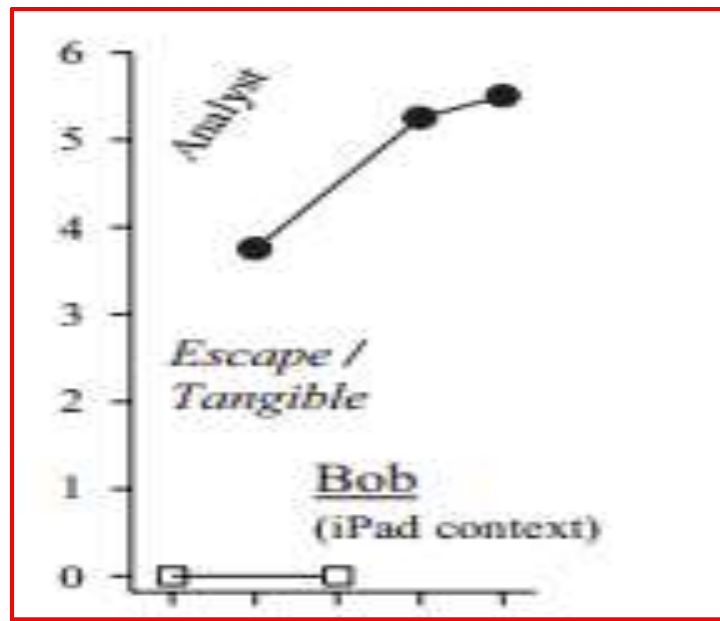


Hanley, Jin,  
Vanselow, and  
Hanratty (2014)



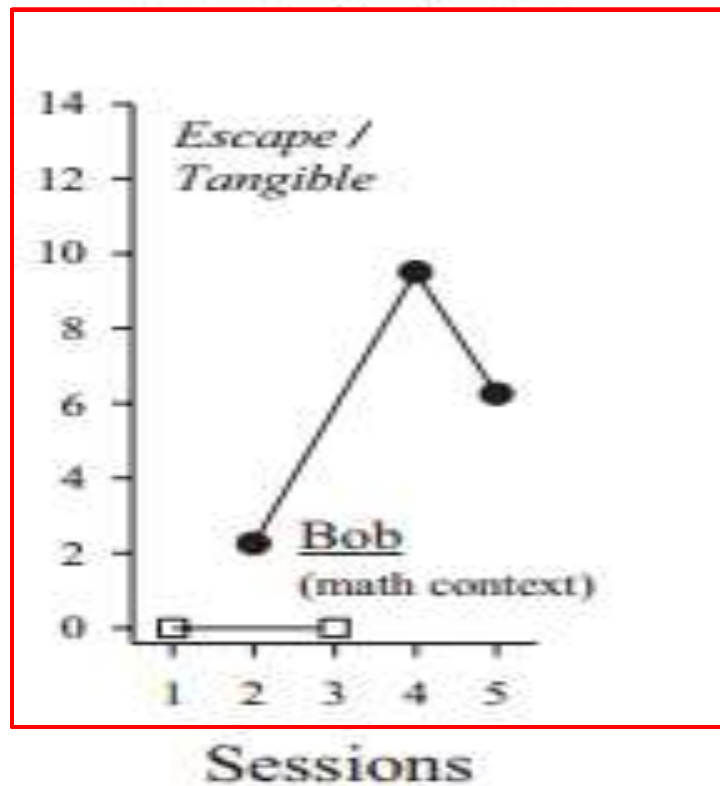
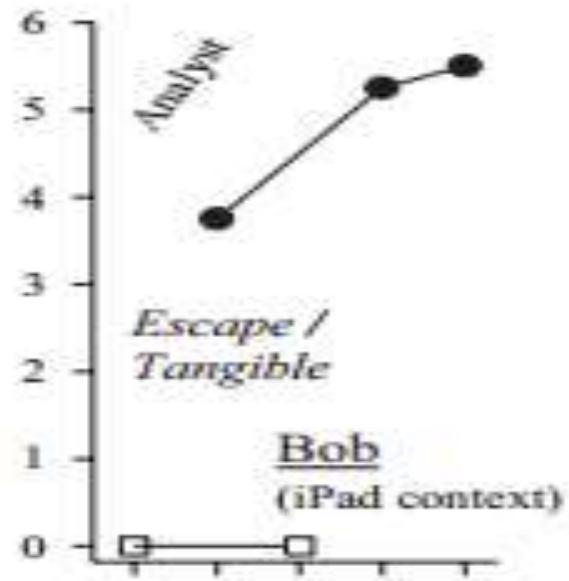
Hanley, Jin,  
Vanselow, and  
Hanratty (2014)

Problem Behavior per minute



Hanley, Jin,  
Vanselow, and  
Hanratty (2014)

Problem Behavior per minute



Hanley, Jin,  
Vanselow, and  
Hanratty (2014)

# Introduction

## SYNTHESIZED FA

Pros

Cons

# Introduction

## SYNTHESIZED FA

Pros

Less time-intensive

Cons

# Introduction

## SYNTHESIZED FA

### Pros

Less time-intensive

Supported in the literature

### Cons

# Introduction

## SYNTHESIZED FA

Pros	Cons
Less time-intensive Supported in the literature	False-positives



# Introduction

- ▶ Have you run a synthesized FA?



# Introduction

- ▶ Other methods of enhancing the FA methodology

- ▶ FA Control Conditions

- (Fahmie, Iwata, Querim, & Harper, 2013; Thompson, Iwata, Hanley, Dozier, & Samaha, 2003)

- ▶ Condition Sequencing

- (Hammond, Iwata, Rooker, Fritz, & Bloom, 2013)

Fixed Sequence: Alone → Attention → Play → Demand



# Introduction

- ▶ Other methods of enhancing the FA methodology

- ▶ Use of Specific Discriminative Stimuli

- (Conners et al., 2000)

- ▶ Individualizing Standard FA Conditions

- (Fahmie, Iwata, Harper, & Querim, 2013; Fischer, Iwata, & Worsdell, 1997; Richman, Wacker, Asmus, Casey, & Andelman, 1999; Rodriguez, Thompson, & Baynam, 2010; Thomason-Sassi, Iwata, & Fritz, 2013).

# Introduction

FA Condition	Modifications
Negative Reinforcement (escape)	Preference for task Amount of work required Tone of voice Type of prompt Timing of prompt Wording of instruction
Positive Reinforcement (attention)	Therapist leaves the room Therapist attends to someone else's problem behavior
Positive Reinforcement (tangible)	Assigns ownership of tangible Consumes edibles in front of subject





# Introduction

- ▶ Idiosyncratic, Difficult to Analyze Behaviors
  - ▶ Covert self-injury  
(Grace, Thompson, & Fisher, 1996)
  - ▶ Behavior maintained by compliance with subject's mands  
(Bowman, Fisher, Thompson, & Piazza, 1997)
  - ▶ Low-rate high-intensity behavior  
(Kahng, Abt, & Schonbachler, 2001)



# Introduction

- ▶ Idiosyncratic, Difficult to Analyze Behaviors

- ▶ Object mouthing

- (Carr, Dozier, Patel, Adams, & Martin, 2002)

- ▶ Elopement

- (Neidert, Iwata, Dempsey, & Thomason-Sassi, 2013)



# Introduction

- ▶ Pre-FA assessment may result in clearer FA outcomes
  - ▶ Demand assessment  
(Roscoe, Rooker, Pence, & Longworth, 2009)
  - ▶ Screening for automatic reinforcement  
(Querim et al., 2013)

# Introduction

- ▶ Despite modifications, FAs not conducted regularly in home-settings (Hanley, Iwata, & McCord, 2003)
- ▶ Few studies report other factors that may inhibit the use of FAs in home-settings



# Introduction

- ▶ FA Cost
  - ▶ Interview and Synthesized FA (Hanley et al., 2014)
    - ▶ \$460.00 on average per participant

# Purpose

- ▶ Prepare practitioners to:
  - ▶ Develop and implement FAs in their current setting
  - ▶ Within the scope of time and resources typically available for home-based services

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Is a FA appropriate for your client?
  - ▶ What types of considerations do you think you will need to make?

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Is a FA appropriate for your client?
  - ▶ What types of considerations do you think you will need to make?
- ▶ Things we have worked around in the past:
  - ▶ Younger siblings present

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Is a FA appropriate for your client?
  - ▶ What types of considerations do you think you will need to make?
- ▶ Things we have worked around in the past:
  - ▶ Younger siblings present
  - ▶ Mom is pregnant, target behavior is aggression

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Is a FA appropriate for your client?
  - ▶ What types of considerations do you think you will need to make?
- ▶ Things we have worked around in the past:
  - ▶ Younger siblings present
  - ▶ Mom is pregnant, target behavior is aggression
  - ▶ Behavior is dangerous

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Is a FA appropriate for your client?
  - ▶ What types of considerations do you think you will need to make?
- ▶ Things we have worked around in the past:
  - ▶ Younger siblings present
  - ▶ Mom is pregnant, target behavior is aggression
  - ▶ Behavior is dangerous
  - ▶ Behavior does not occur if ABACS staff are present
  - ▶ Reactivity
  - ▶ Other ideas?

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Possible Target Behaviors: Aggression, tantrum, SIB, flopping, bolting, noncompliance, environmental destruction, idiosyncratic behavior
- ▶ What may be some difficulties with targeting these, or any other target behaviors in a home setting?
  - ▶ What contingencies are you operating under? What contingencies are parents and caregivers operating under?



# Considerations for Conducting FAs in Home-Based Settings

- ▶ Discussion question: What is the severity of the target behavior?
  - ▶ Give an example of a behavior that you consider to be severe
  - ▶ How might you work around this potential challenge in a home setting?

# Considerations for Conducting FAs in Home-Based Settings

- ▶ What assessments and interventions have been implemented in the past?
  - ▶ Informant interview that may inform FA
  - ▶ Do you have any previous history with this client?
  - ▶ Behavior plans implemented prior to FA being implemented

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Based on the above considerations, how risky would a FA be for the client?
  - ▶ What precautions could be taken to decrease the risks?
    - ▶ Number of sessions
    - ▶ Length of sessions
    - ▶ What measure will you use?
    - ▶ Will you conduct an FA of precursor behavior instead of an FA of your target behavior?
    - ▶ What environmental modifications can you use?

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Discussion question:
  - ▶ What type of assessment procedures are you already doing? How may those procedures be incorporated into an assessment that includes functional analyses?

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Non-experimental Assessment
  - ▶ Caregiver interview
    - ▶ Take into consideration the environment, hypothesized function of the target behavior, and the reliability of the reporter

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Non-experimental Assessment
  - ▶ Caregiver interview
    - ▶ Take into consideration the environment, hypothesized function of the target behavior, and the reliability of the reporter
  - ▶ Client observation: ABC data or scatterplot

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Resources Available
  - ▶ Staff Qualifications
    - ▶ Who is qualified to run a FA?
    - ▶ Training

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Resources Available
  - ▶ Time available for the assessment



# Considerations for Conducting FAs in Home-Based Settings

- ▶ Resources Available
  - ▶ Time available for the assessment
  - ▶ Budget available for the assessment

# Considerations for Conducting FAs in Home-Based Settings

- ▶ Discussion questions:

- ▶ What concerns come up for you with regard to the resources needed to conduct FAs in the home?
- ▶ What barriers do you face in your agency?



# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions



# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions



## Gather information about relevant variables

- ▶ Unstructured interview (Hanley, 2012)
- ▶ Knowledge of client
- ▶ Direct observation



# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
2. **Determine measure & define response**
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions

# Determine Measure & Define Response

- ▶ Define the response
  - ▶ Precursors
  - ▶ Behaviors that are not discrete responses
- ▶ Selecting a Measurement Method
  - ▶ Frequency / Rate
  - ▶ Latency
  - ▶ Percentage of Trials

# Determine Measure & Define Response

- ▶ Measurement method & design interact closely
- ▶ Start with the most appropriate measurement method
  - ▶ This will often lead the way to what type of FA methodology you will utilize





# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
2. Determine measure & define response
- 3. Select design**
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions



# Select Design

- ▶ Based on the measurement method you selected, what FA type will you select?
  - ▶ Note the pros and cons of each FA type previously discussed



# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. **Select # of conditions & design contingencies**
5. Session length
6. Number of sessions

# Select # of Conditions & Design Contingencies

- ▶ Selecting Conditions

- ▶ How many conditions will you test?

- ▶ Need at least one control and one test condition

- ▶ Will you test for multiple functions?

# Select # of Conditions & Design Contingencies

- ▶ Designing Contingencies
  - ▶ Test condition(s) - Evoke behavior
  - ▶ Control condition - Abate behavior
- ▶ Control condition should be a control for ALL test conditions



# Designing Contingencies

	Antecedents	Consequences
TEST	<p>Variables where the behavior is most likely to occur</p> <p>Include an SD for each test condition</p>	<p>Variables that are hypothesized to be maintaining responding</p> <p>Only 1 hypothesized consequence per test condition OR can combine consequences for a synthesized FA</p>
CONTROL	<p>Antecedent variables listed above are not present for the condition</p> <p>AND/OR</p> <p>Consequence from test condition is maintained on a time-based schedule</p>	<p>Usually no contingent consequence for the behavior</p>



# Designing Contingencies - EXAMPLE

	Antecedents	Consequences
TEST	<p>Variables where the behavior is most likely to occur</p> <p>Include an SD for each test condition</p>	<p>Variables that are hypothesized to be maintaining responding</p> <p>Only 1 hypothesized consequence per test condition OR can combine consequences for a synthesized FA</p>
CONTROL	<p>Antecedent variables listed above are not present for the condition</p> <p>AND/OR</p> <p>Consequence from test condition is maintained on a time-based schedule</p>	<p>Usually no contingent consequence for the behavior</p>



# Designing Contingencies - EXAMPLE

	Antecedents	Consequences
TEST	<p>Present work materials at the student's desk</p> <p>“Time to do some work”</p>	<p>Variables that are hypothesized to be maintaining responding</p> <p>Only 1 hypothesized consequence per test condition OR can combine consequences for a synthesized FA</p>
CONTROL	<p>Antecedent variables listed above are not present for the condition</p> <p>AND/OR</p> <p>Consequence from test condition is maintained on a time-based schedule</p>	<p>Usually no contingent consequence for the behavior</p>





# Designing Contingencies - EXAMPLE

	Antecedents	Consequences
TEST	Present work materials at the student's desk  "Time to do some work"	Removal of demands
CONTROL	Antecedent variables listed above are not present for the condition  AND/OR  Consequence from test condition is maintained on a time-based schedule	Usually no contingent consequence for the behavior



# Designing Contingencies - EXAMPLE

	Antecedents	Consequences
TEST	Present work materials at the student's desk  "Time to do some work"	Removal of demands
CONTROL	No work materials presented	Usually no contingent consequence for the behavior



# Designing Contingencies - EXAMPLE

	Antecedents	Consequences
TEST	Present work materials at the student's desk  "Time to do some work"	Removal of demands
CONTROL	No work materials presented	No contingent consequence for the behavior



# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. **Session length**
6. Number of sessions



# Session Length

- ▶ Consider the client's learning history
  - ▶ Does the client adapt to new contingencies quickly? Do they respond to discriminative stimuli (SDs) in a short period of time?
  - ▶ Is it harder for your client to differentiate between contingencies? Do they respond more slowly to new SDs?
- ▶ If you're using rate/frequency, this may also affect session length.



# Steps to Conducting a Functional Analysis

1. Gather information about relevant variables
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# Number of sessions

- ▶ How many sessions should you include and how long should each session be?
  - ▶ How many sessions are needed to demonstrate experimental control?
  - ▶ Safety considerations
  - ▶ Practical considerations
  - ▶ You can determine this based on data alone as you are conducting the FA



## Participant #17

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
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## Participant #17

1. Gather information about relevant variables
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## Participant #17

1. Gather information about relevant variables
2. **Determine measure & define response**
3. Select design
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6. Number of sessions



## Participant #17

1. Gather information about relevant variables
2. Determine measure & define response
- 3. Select design**
4. Select # of conditions & design contingencies
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## Participant #17

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. **Select # of conditions & design contingencies**
5. Session length
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# Participant #17 - Attention

	Antecedents	Consequences
TEST 1	<p>“I am going to work on this for a minute, you can play with your toys”</p> <p>Provided access to the toys</p>	<p>“That’s not how we play with the puzzle, we play like this...”</p> <p>Prompt student to engage with the puzzle for 3 seconds</p>



# Participant #17 - Demand

	Antecedents	Consequences
TEST 2	Provided access to the toys Presents academic demands	“Oh you need a break” Removes academic materials & provides a 15 s break



# Participant #17 - Automatic/No interaction

	Antecedents	Consequences
TEST 3	Provided access to the toys	No contingent consequence



## Participant #17 - Control

	Antecedents	Consequences
CONTROL	Provided access to the toys No demands are presented Teacher attention is provided on a FT 15 s schedule	No contingent consequence





## Participant #17

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. **Session length**
6. Number of sessions

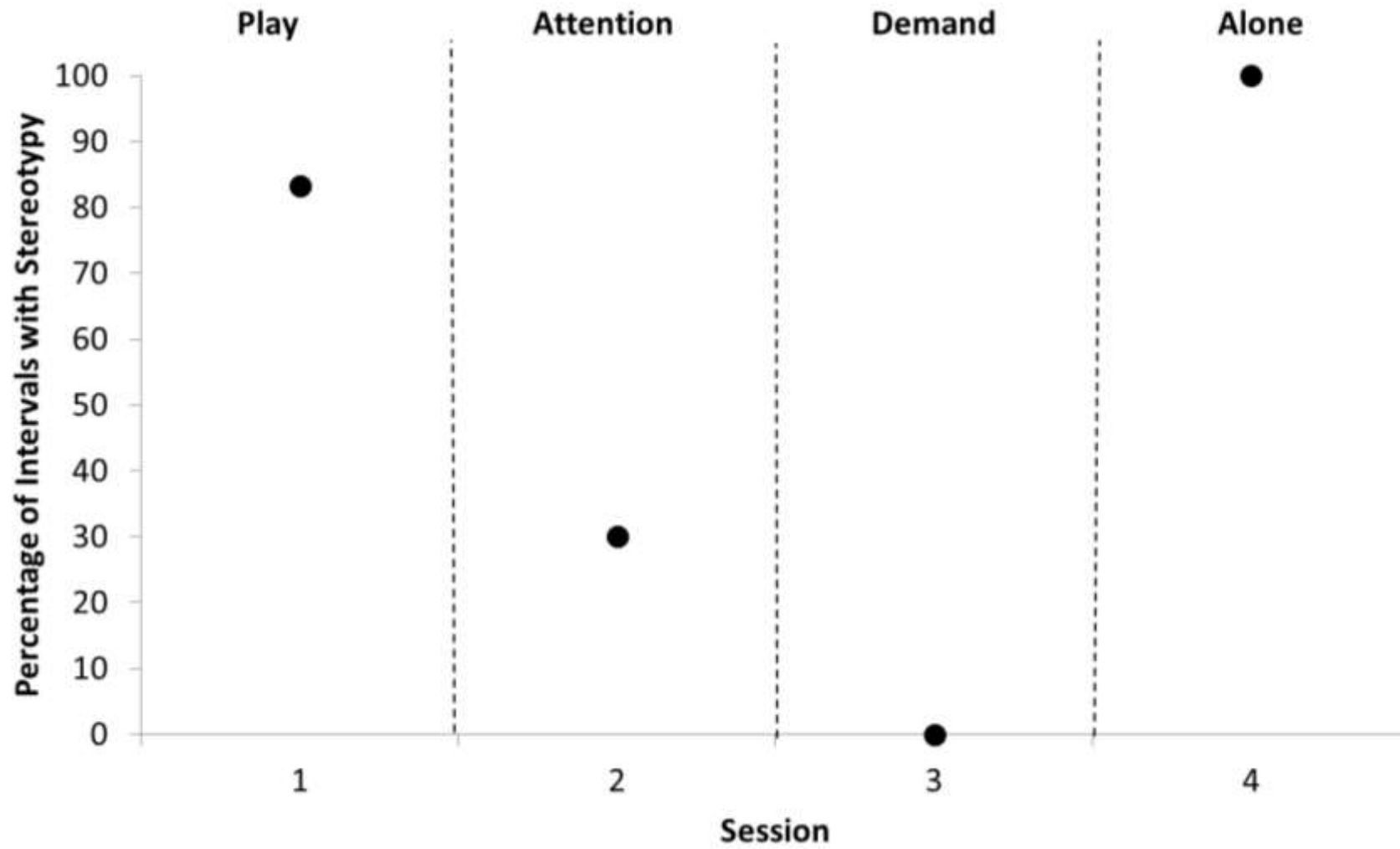


## Participant #17

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. **Number of sessions**



# Participant #17





# Participant # 5

▶ Test Condition Session #1



# Participant # 5

- ▶ Control Condition Session #1



## Participant #5

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions



## Participant #5

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions



## Participant #5

1. Gather information about relevant variables
2. **Determine measure & define response**
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions





## Participant #5

1. Gather information about relevant variables
2. Determine measure & define response
- 3. Select design**
4. Select # of conditions & design contingencies
5. Session length
6. Number of sessions



## Participant #5

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. **Select # of conditions & design contingencies**
5. Session length
6. Number of sessions



## Participant #5 - Attention

	Antecedents	Consequences
TEST	Preferred items were withheld  And if he reached for an item, stated “no”	“Okay you can have it”



# Participant #5 - Control

	Antecedents	Consequences
CONTROL	Preferred items are provided throughout session	No contingent consequence



## Participant #5

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. **Session length**
6. Number of sessions

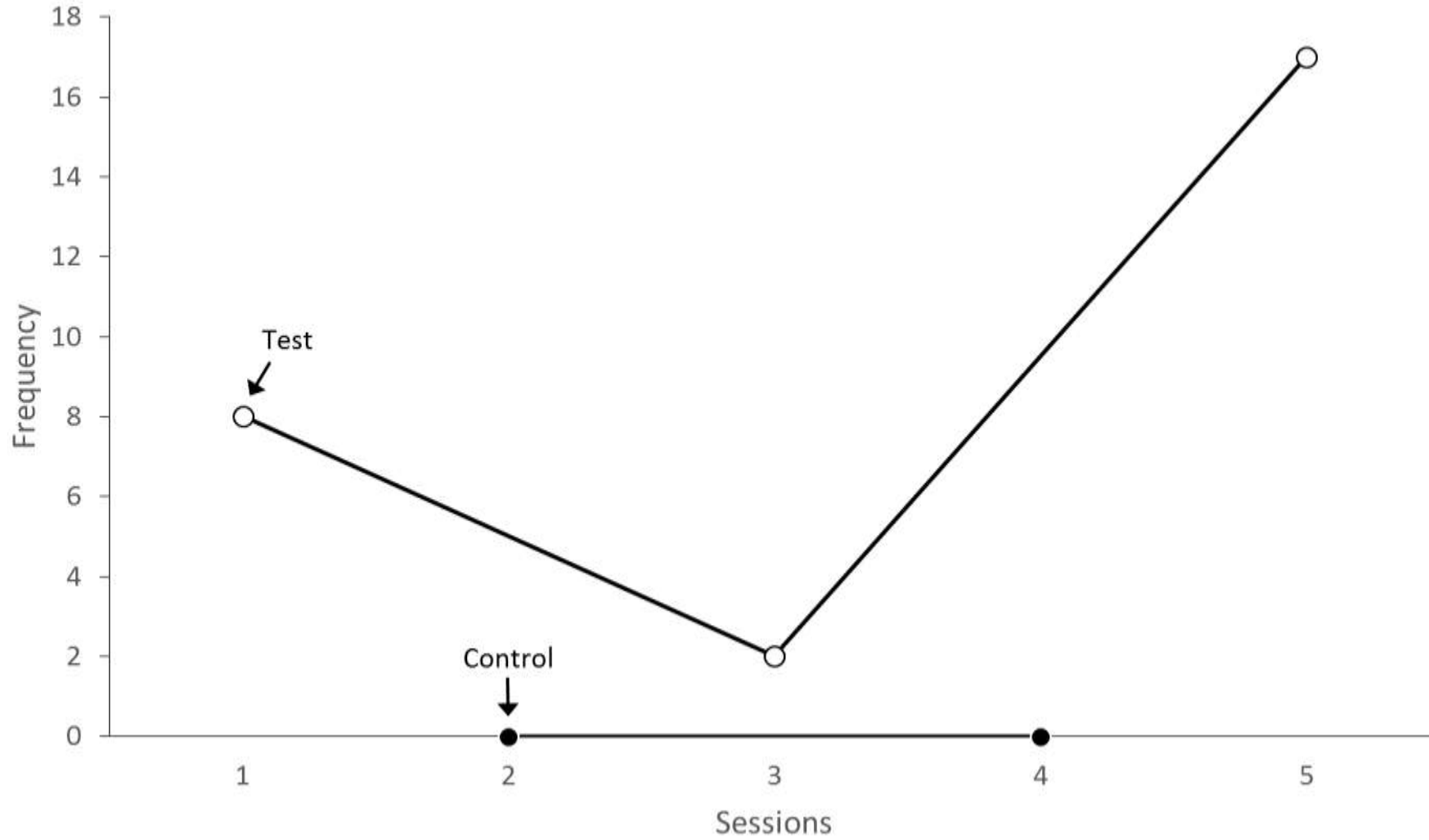


## Participant #5

1. Gather information about relevant variables
2. Determine measure & define response
3. Select design
4. Select # of conditions & design contingencies
5. Session length
6. **Number of sessions**



# Participant #5

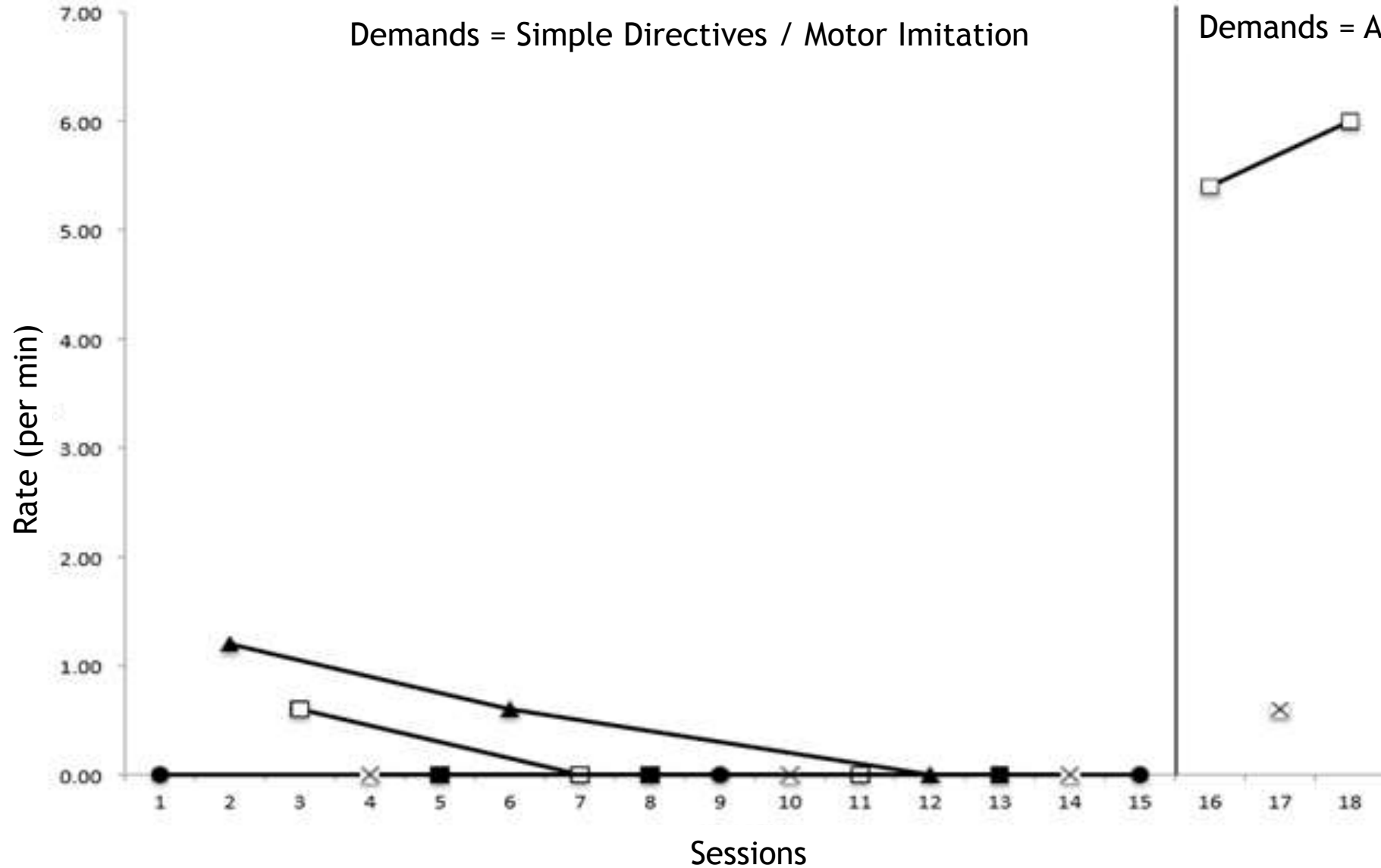




# Participant #3

Demands = Simple Directives / Motor Imitation

Demands = ADLs





# Analyzing and Supporting FA Outcomes

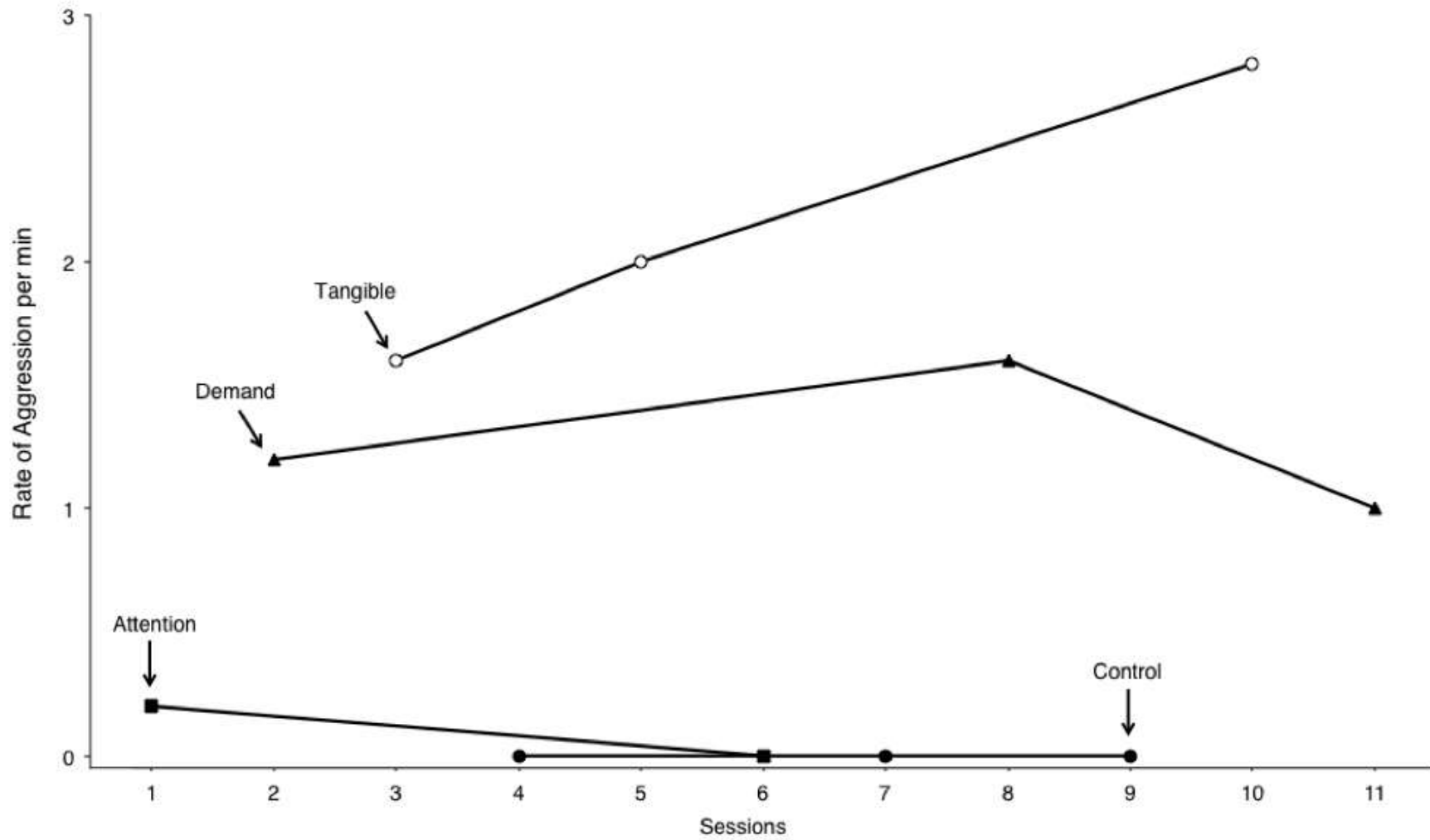
- ▶ What can you do if differentiation does not occur?

# Analyzing and Supporting FA Outcomes

- ▶ Collecting interobserver agreement (IOA) and procedural integrity (PI) data

# Analyzing and Supporting FA Outcomes

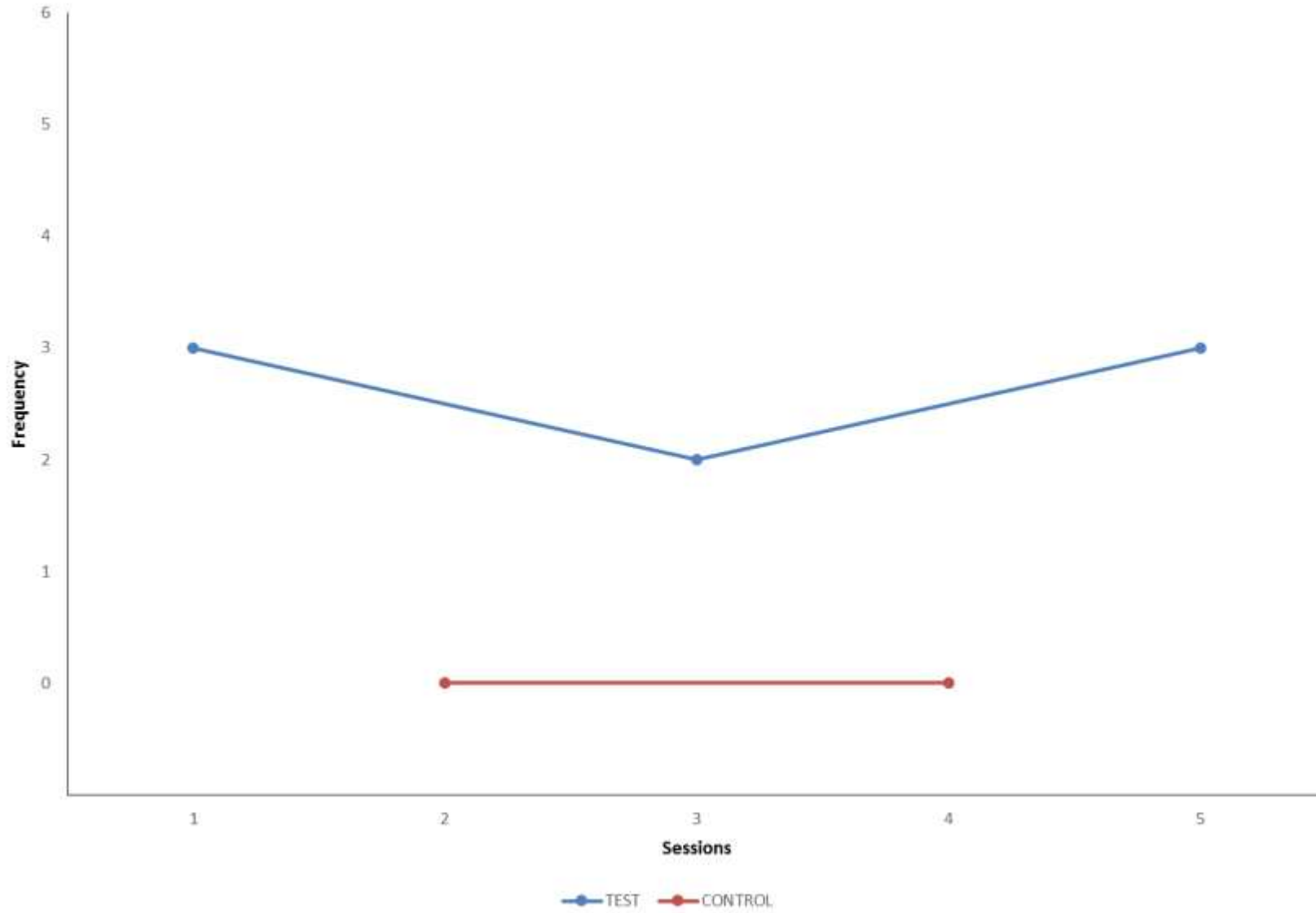
- ▶ Analyzing the Data
  - ▶ Visual analysis is the most common method for determining if experimental control has been demonstrated



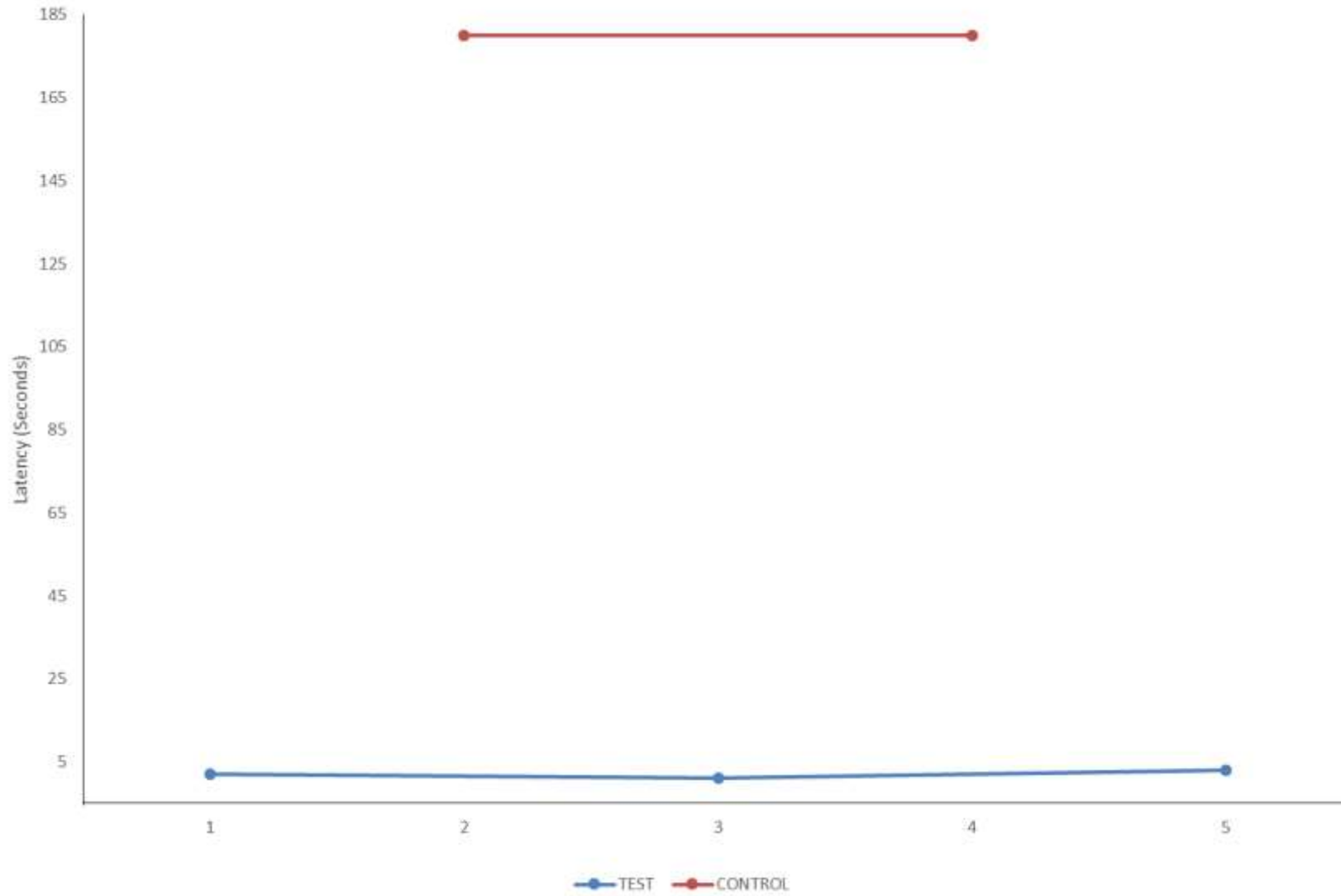
# Analyzing and Supporting FA Outcomes

- ▶ Analyzing the Data
  - ▶ Visual analysis is the most common method for determining if experimental control has been demonstrated
  - ▶ Latency-based FAs vs. FAs that included rate or %

# Noncompliance



### Latency to Problem Behavior During Transitions Preferred Toy Activity to Non-Preferred Food



# Analyzing and Supporting FA Outcomes

- ▶ Analyzing the Data

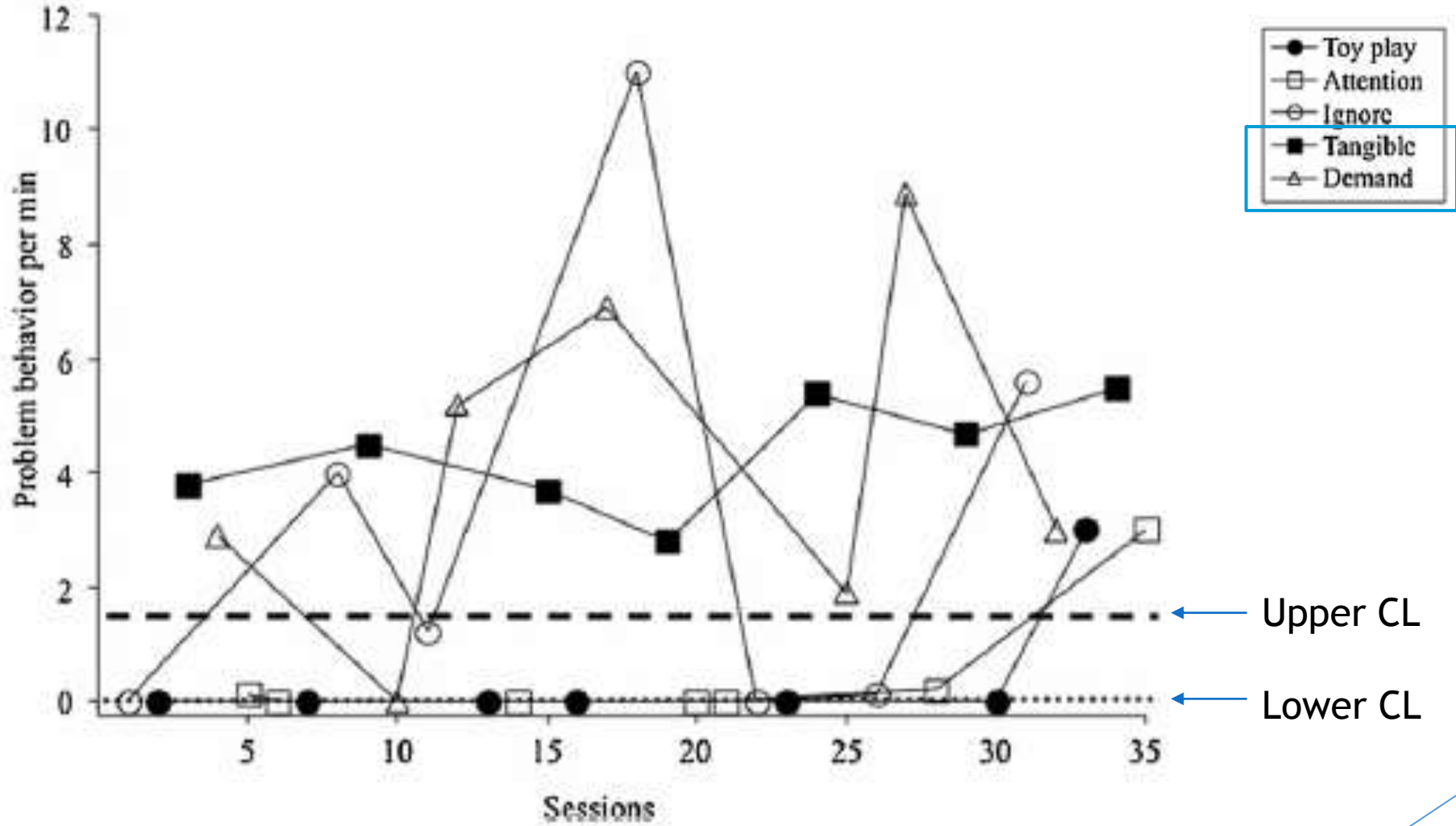
- ▶ Advanced Analysis

- ▶ Structured criteria for analysis of FA data (Hagopian, Fisher, Thompson, Owen-DeSchryver, Iwata, & Wacker, 1997; Roane, Fisher, Kelley, Mevers, & Bouxsein, 2013)
    - ▶ Visual analysis may be less reliable than assumed (Hagopian et al, 1997)



# Analyzing and Supporting FA Outcomes

- ▶ Roane et al. (2013)
  - ▶ Excel calculated upper and lower criterion lines based on data in control condition
  - ▶ Differentiation present if at least 50% of data points fell outside the criterion lines set at 1 standard deviation above and below the mean rate from the control



# Analyzing and Supporting FA Outcomes

- ▶ Outcomes from Roane et al. (2013)
  - ▶ Staff can be trained to be more stringent in visual inspection of data
  - ▶ Increased inter-rater reliability regardless of level of experience
  - ▶ Can compare initial visual inspection and visual inspection post-training

# Case Studies

- ▶ Break into groups of [insert number of people/group based on attendance]
- ▶ Read case study and fill out worksheet
- ▶ Report back to the group

# Post-Test

- ▶ Please complete post-test and pass it in before leaving.

# Thank you!

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