

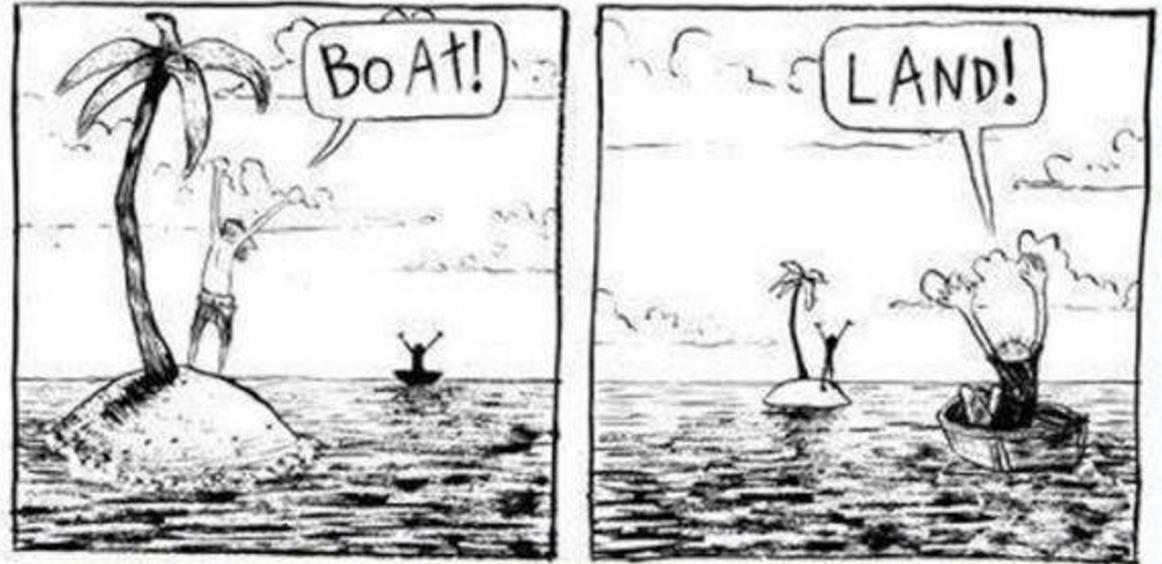
Perspective Taking by Problem Solving

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HUNTER
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Perspective Taking

- Knowing that other people might have differing beliefs from one's own and that these beliefs will affect their behavior (Schlinger, 2009; Sigman & Capps, 1997)



Perspective...

Perspective Taking



Perspective Taking Deficits

Might not (LeBlanc et al., 2003; Persicke et al., 2012)

- Share
- Take turns
- Be empathetic
- Respond to social cues
- Understand figurative language
- Comprehend lies and deceit

Appear rude

Interfere with development of intimate relationships (Peters & Thompson, 2015; Weiss & Harris, 2001)

The Problem in Perspective-Taking

Might not realize that other's experience different things

- Assume everyone experiences same private events

Might not know how to tact own or other's private events

What do you do with this information once you have it?

Prerequisite Skills

Realize that others might have access to different stimulation via their **senses** (Flavell, 1977; Gould et al., 2011; Hahs, 2015; Welsh et al., 2019)

- Visual, auditory, tactile, olfactory, gustatory

Prerequisite Skills

Learn to make logical connections between the behavior and reinforcing outcome

- What do others see, hear, smell, feel, etc.?

Or think about how you felt and behaved in similar situations (Spradlin & Brady, 2008)

Assessing Perspective Taking

Unexpected Transfer

False Identify

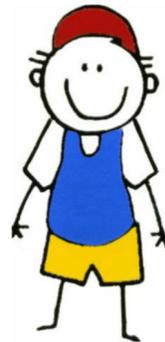
Misidentified Object

Unexpected Transfer/Location

Person A puts item in location
A and then leaves



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Unexpected Transfer/Location

Person A puts item in location A and then leaves



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Person B moves item to location B



Unexpected Transfer/Location

Person A puts item in location A and then leaves



Person B moves item to location B



Ask child, "Where will Person A look for the item when she returns?"



False Identity

Show child a container that typically holds an item

Ask child what is in the container



False Identity

Show child a container that typically holds an item

Ask child what is in the container



Show child that there something else inside the container



False Identity

Show child a container that typically holds an item

Ask child what is in the container



Show child that there something else inside the container

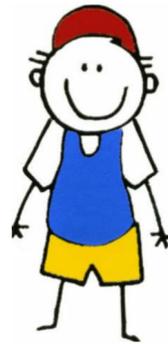


Ask child, "what would someone else think is in the box?"



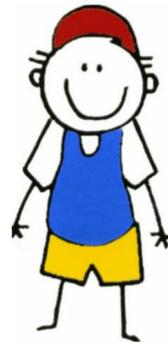
Misidentified Object

Show child an object that appears to be a common item



Misidentified Object

Show child an object that appears to be a common item



Show child the item is actually something else



Misidentified Object

Show child an object that appears to be a common item



Show child the item is actually something else



Ask child, "what would someone else think this item is?"



Teaching Perspective Taking

Covert verbal behavior

Teach a rule (Ozonoff & Miller, 1995)

- *Person will know x only if s/he saw or heard about x*
- Lack of generalization to natural environment
 - Need to better program for generalization

Programming for Generalization

Video-based instruction

- Naturally occurring multiple exemplars
- Teach skill via video examples
- Consistent presentation of instruction

Teaching Children with Autism to Problem Solve Perspective Taking Tasks Using Video-Based Instruction

Taylor-Santa¹, Kisamore²,
Reeve¹, Sidener¹, & LeBlanc³

¹Caldwell University

²Hunter College

³LeBlanc Behavioral Consulting

Purpose

Video-based instruction to teach generalized problem-solving strategy

- A rule to assist identification of shared or differing information
 - *“When I want to know what someone else is thinking, I should pay attention to what they see and hear.”*
- Use information to respond to perspective taking questions

Observational and Interview Assessment: Video Scenarios

Category	Exemplar
Unexpected Location	<ol style="list-style-type: none">1. Person A puts backpack on a chair. Person B moves it to the floor.2. Person A puts pen on a table. Pen falls into the garbage.3. Person A puts a sweatshirt on floor. Person B hangs it by the door.4. Person A puts food in refrigerator. Person B throws food away.5. Person A puts toy on a clock. Person B knock toy of clock.
False Identity	<ol style="list-style-type: none">1. Person A has a container with a jumping snake.2. Person A has a shaken bottle of soda.3. Person A is cleaning and puts the wrong item in a marked container.4. Person A has a shoe container with a toy in it.5. Person A has an odd toy in his backpack.
Misidentified Object	<ol style="list-style-type: none">1. Person A has a book similar to person B. Person B switches item.2. Person A usually orders cola, but orders root beer. Person B takes a sip.3. Person A has fake fruit. Person B goes to eat it.4. Person A usually has fake flowers. Gets real flowers. Person B dusts the flowers.5. Person A puts her black jacket on a chair. Person B puts her jacket over it.

Video Scenarios

Category	Exemplar
Unexpected Location	<ol style="list-style-type: none">1. Person A puts backpack on a chair. Person B moves it to the floor.2. Person A puts pen on a table. Pen falls into the garbage.3. Person A puts a sweatshirt on floor. Person B hangs it by the door.4. Person A puts food in refrigerator. Person B throws food away.5. Person A puts toy on a clock. Person B knock toy of clock.
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Dependent Variable

Vocally responding to perspective-taking and comprehension questions

Behaved in accordance with shared or false beliefs during in vivo probes

Collateral vocal responses

- Using the rules out loud

Pre-requisites Assessment and Training

Tacting information available to others

- Tact hear and see
 - Person observing an action
 - Person being informed about an action
 - No one observing or being told about an action

Hear and See



Neither Hear
or See



Prerequisites Assessment and Training

Tacting private events

- Collateral responses (e.g., person tripping)
- Public accompaniments (e.g., person holding his stomach in pain)

Private Events (Scared)



Baseline

“You are going to watch some videos. During the videos there will be some questions you need to answer. Make sure to say your answer out loud so I can hear it. If you don’t know the answer, that’s fine; just say ‘I don’t know.’ Do you have any questions for me?”

Shared Belief Video



Shared Belief Video



Shared Belief Video



False Belief Video

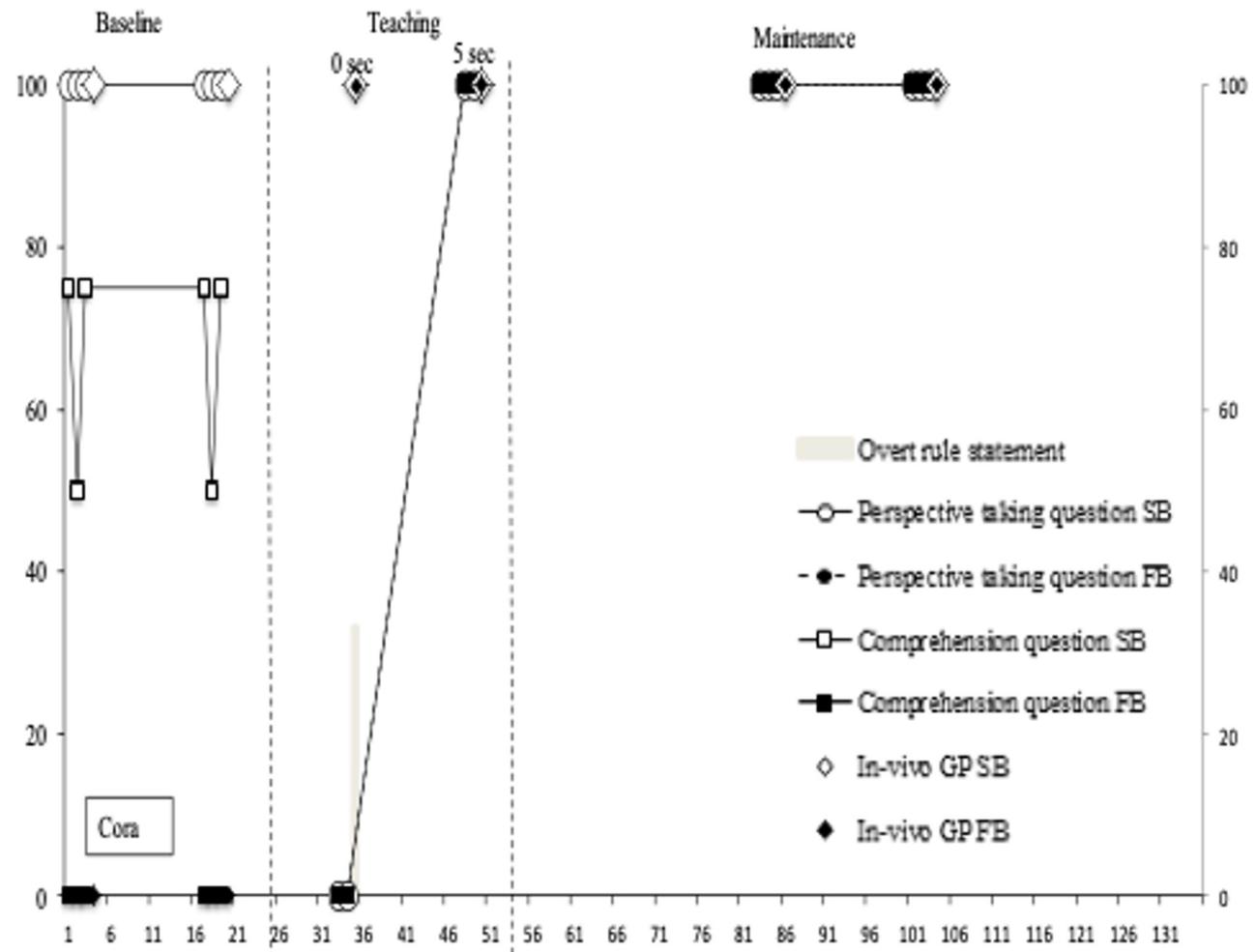


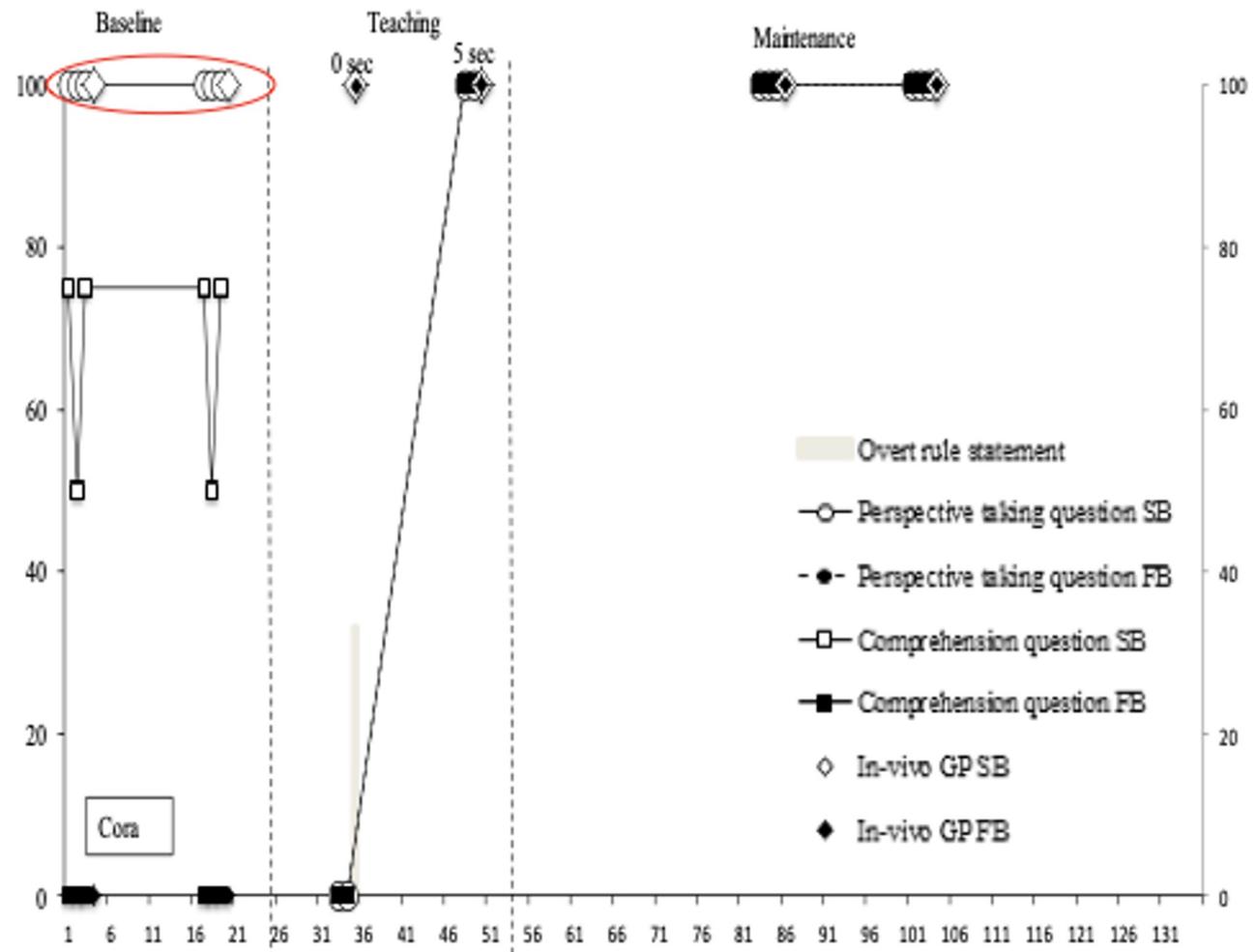
False Belief Video

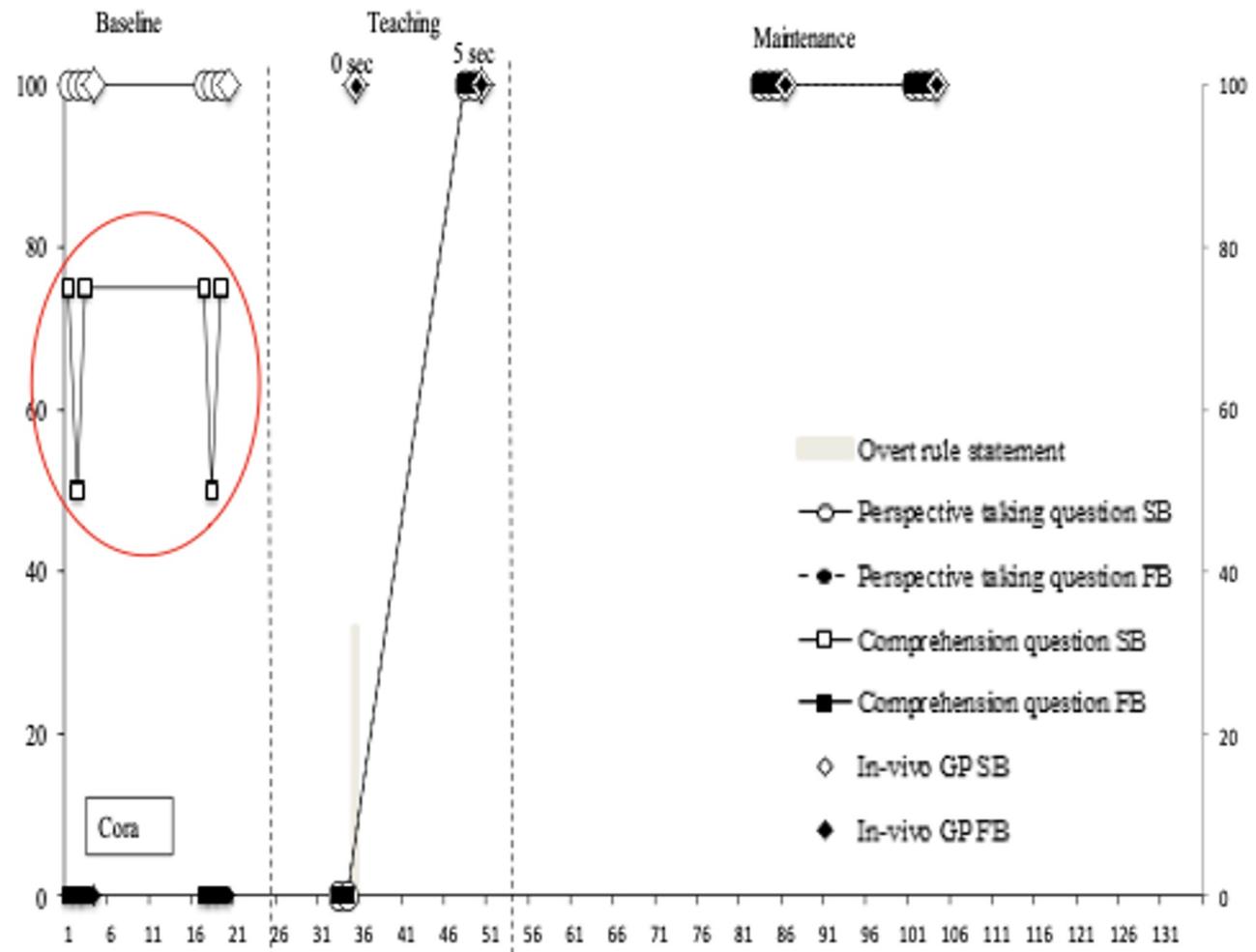


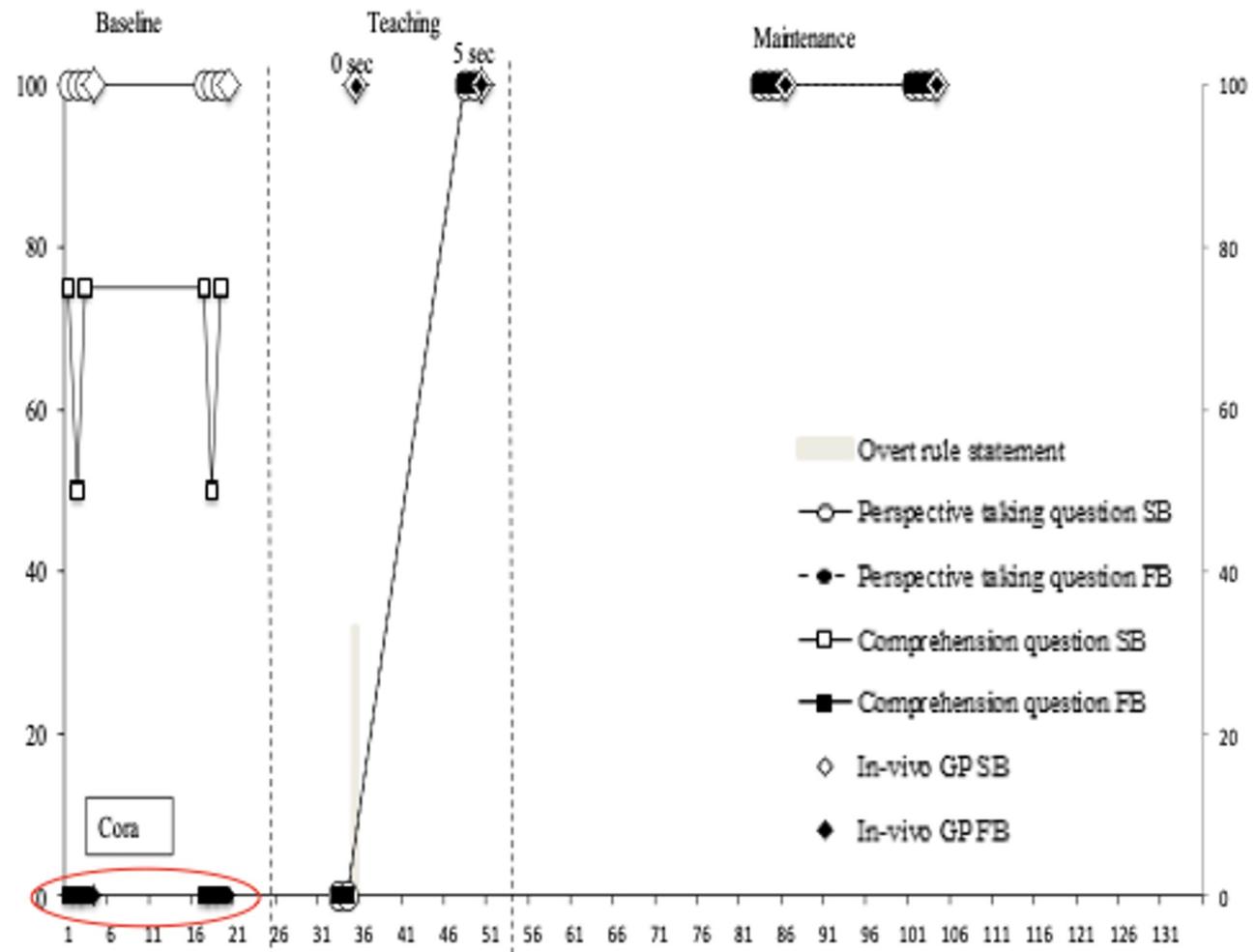
False Belief Video











Video-Based Instruction

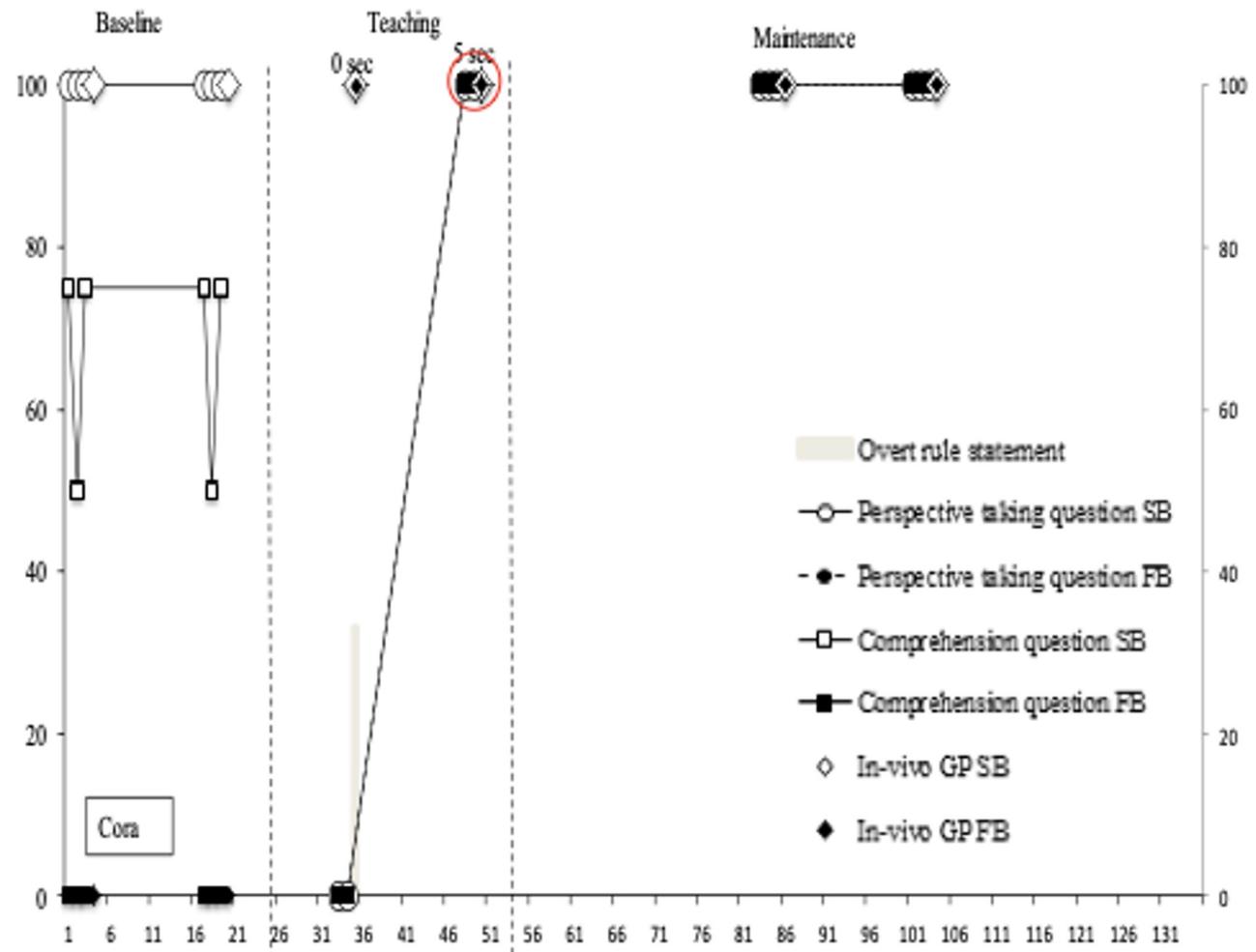
Taught a rule: *When you want to know what others are thinking, ask yourself what the person sees and hears*

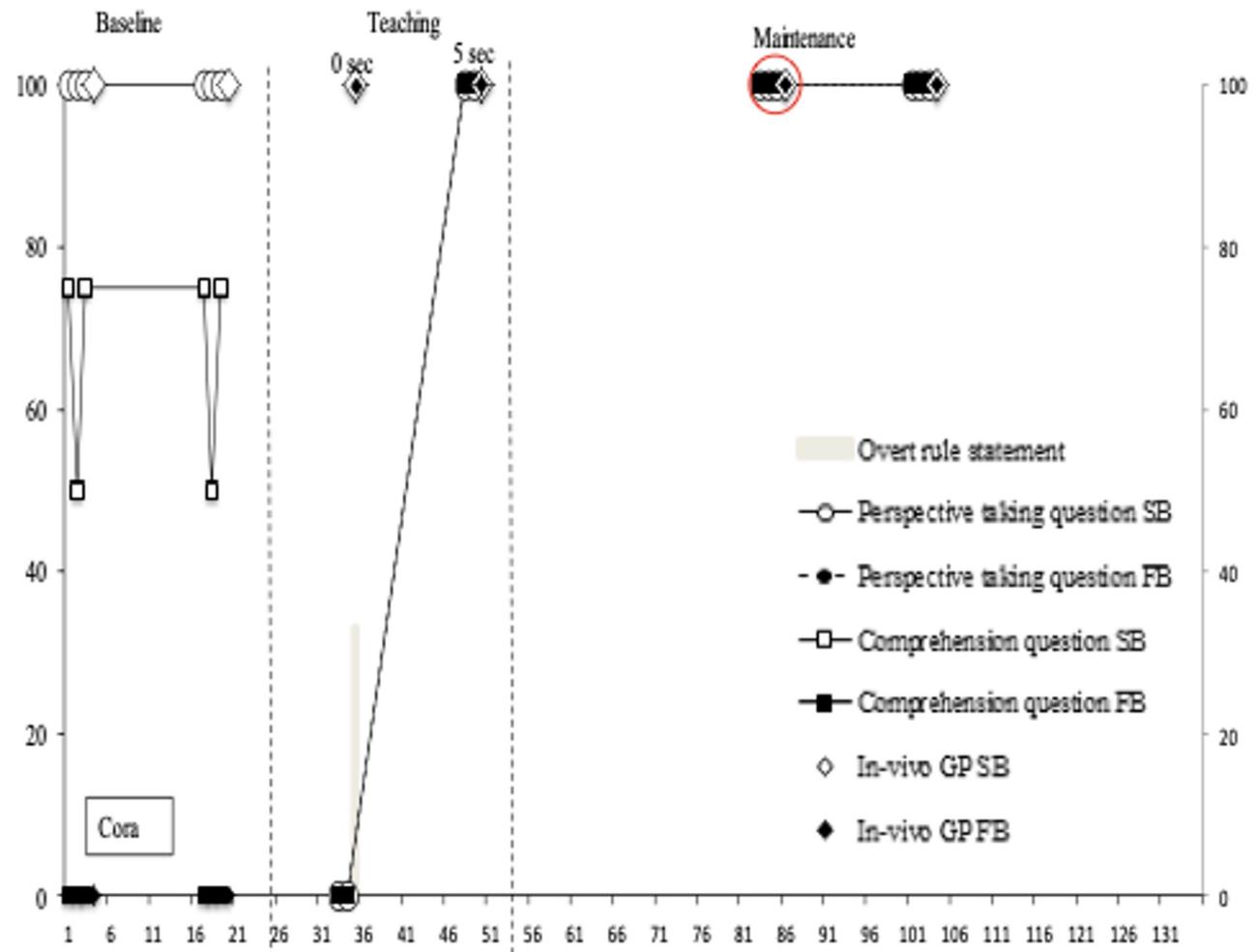
Shown videos of both shared and false belief scenarios

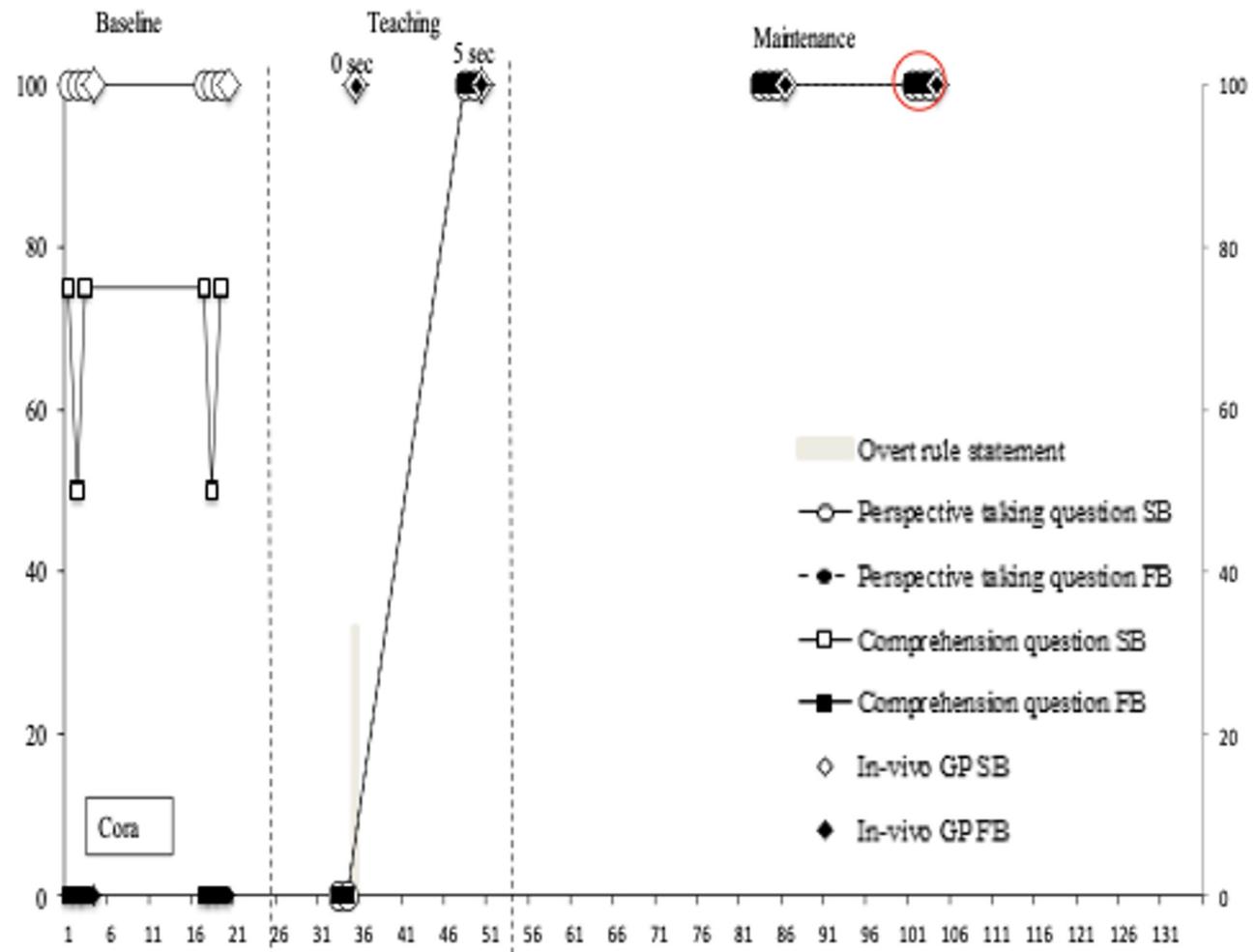
- Asked perspective taking and comprehension questions

Feedback was embedded in the video

- Both positive and corrective







Generalization and Differential Responding

Used a general case analysis to identify stimuli

Programmed for across category generalization by teaching to 2 categories of false belief

- Assessed generalization to the third category of false belief

Programmed for generalization within each category by teaching to four exemplars

- Assessed generalization with a fifth exemplar

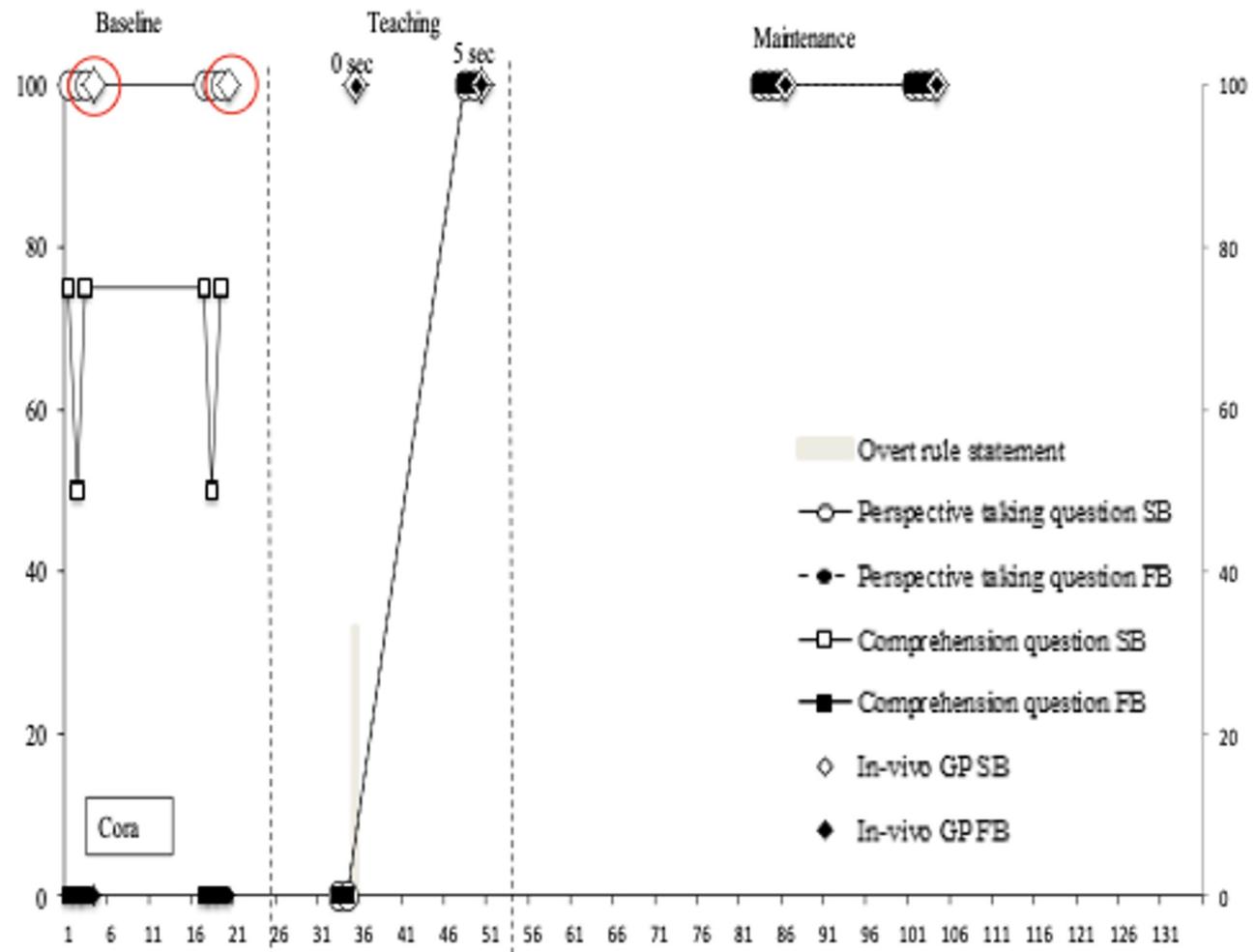
Included both shared- and false-belief scenarios in each category to ensure differential responding

Generalization In-Vivo Probes

Generalization to natural environment

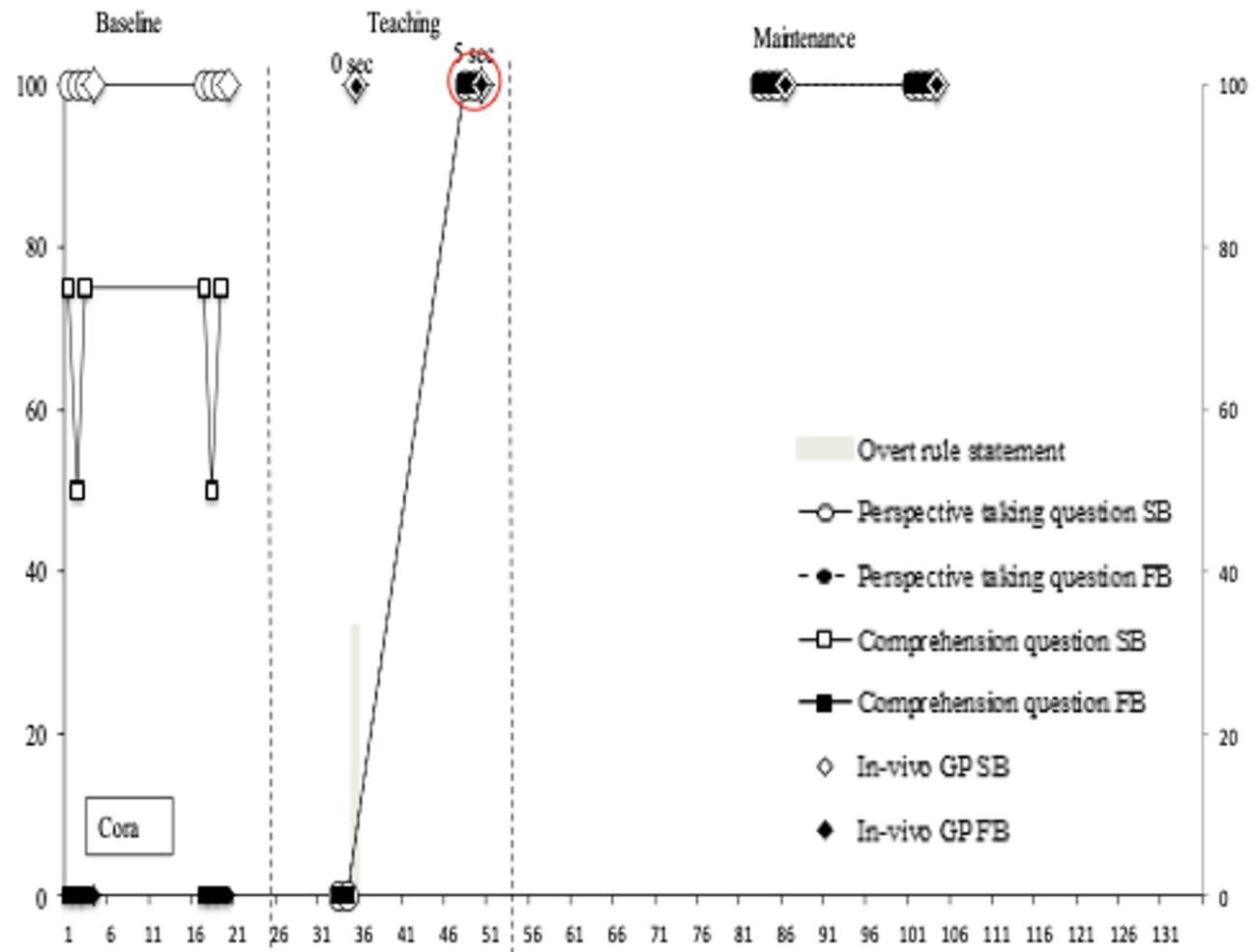
Participant engaging in another activity

Trials-unique (Williams et al., 2006)

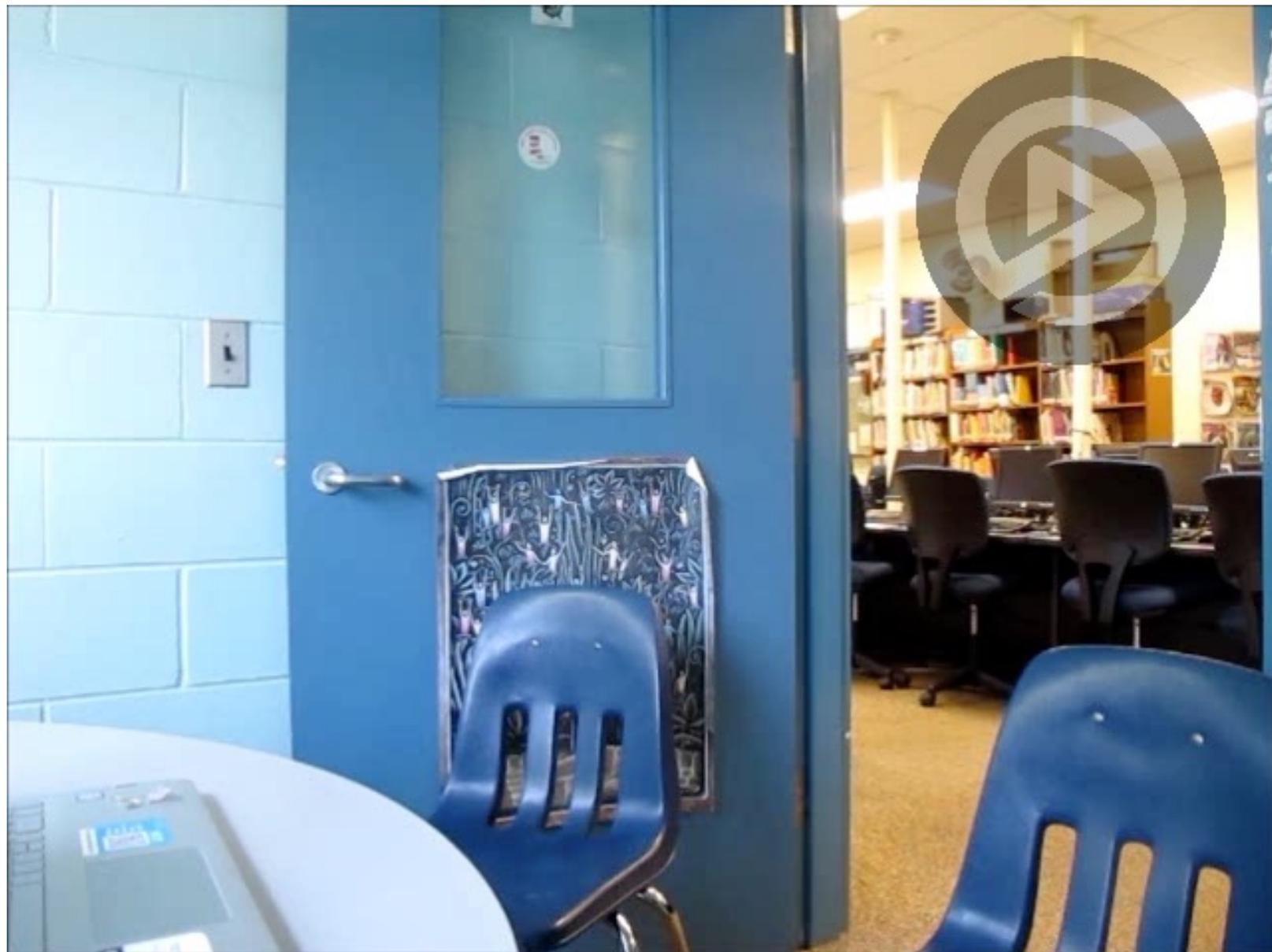


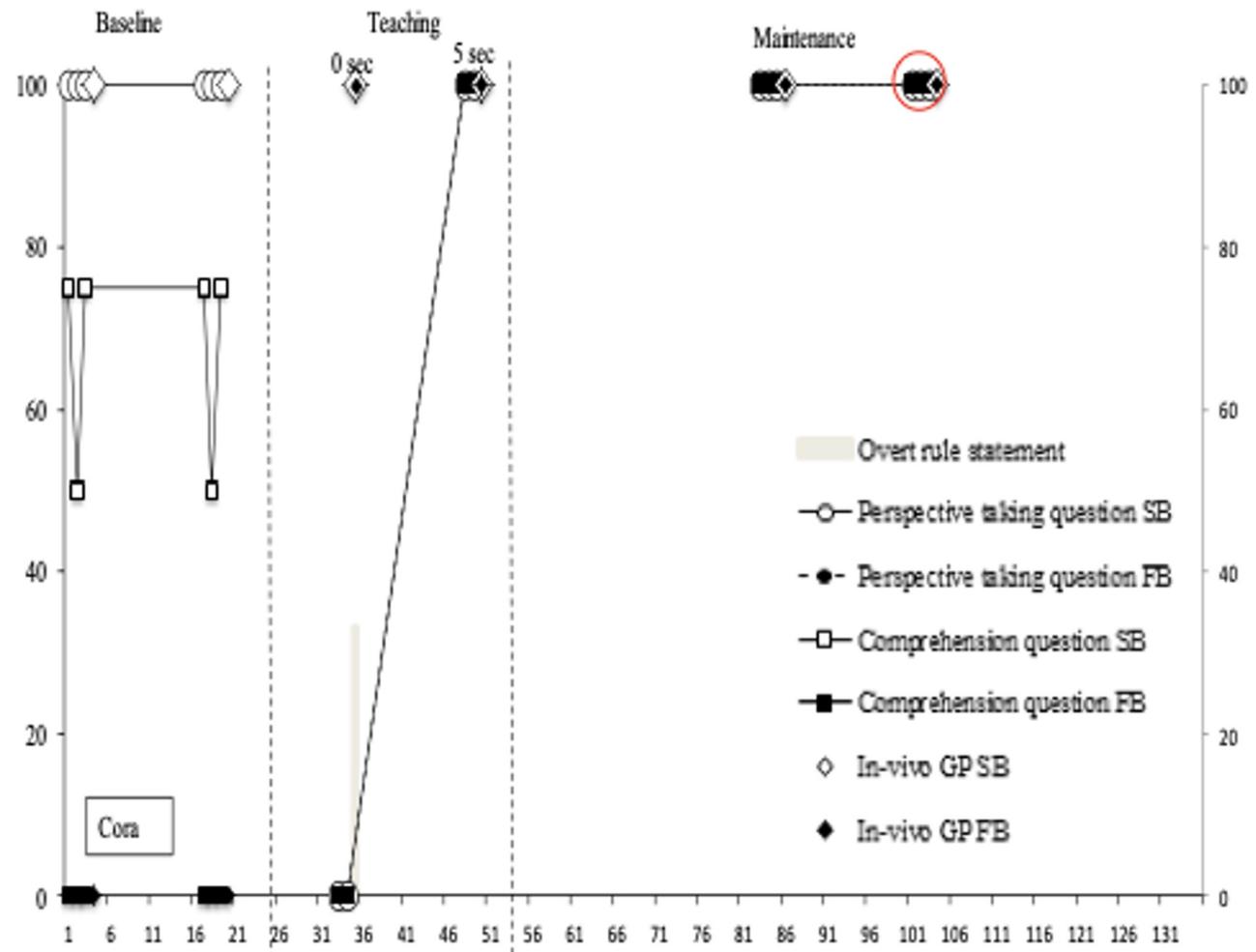
False Belief Baseline GP



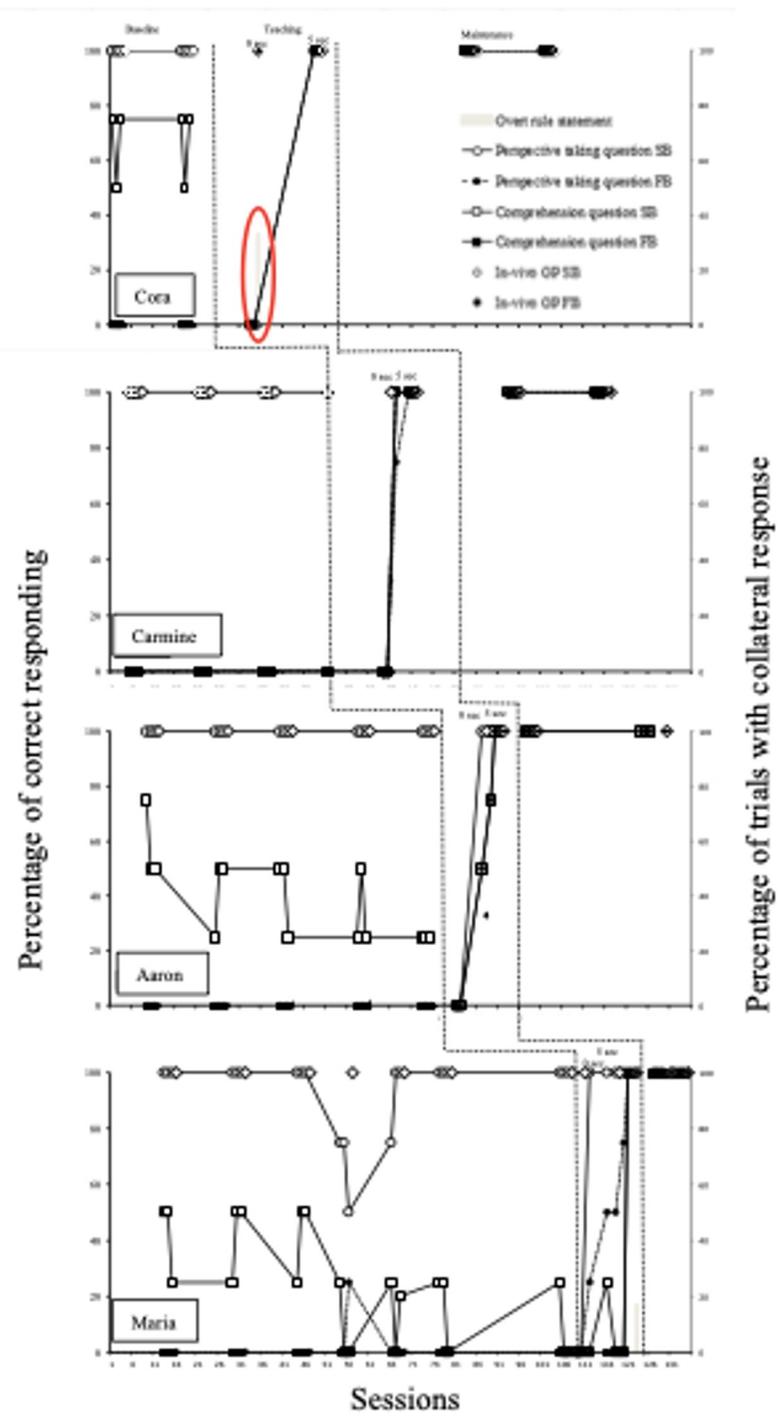


False Belief VBI GP

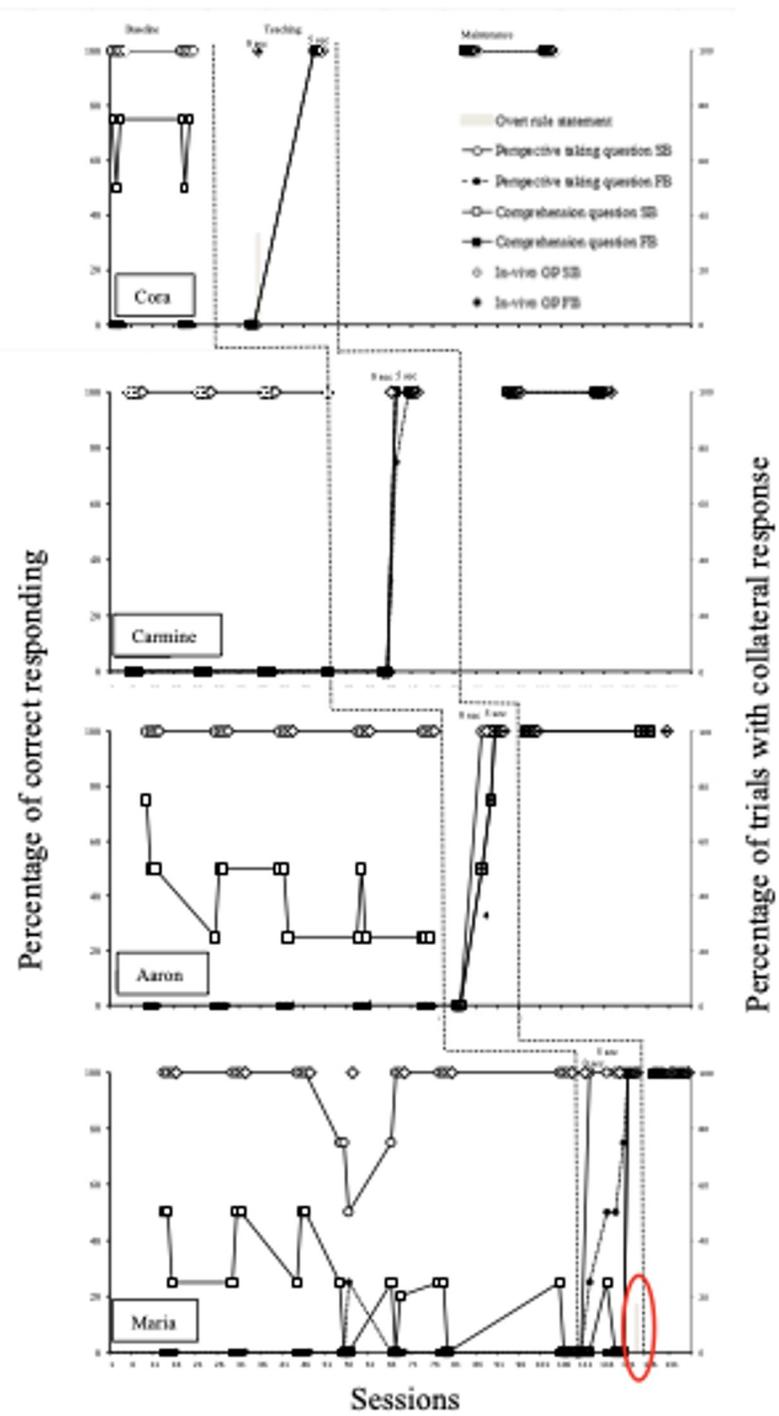




Results



Results



Conclusions and Suggestions

Video-based instruction worked

Include both shared and differing belief tasks

- Ensures differential responding

Carefully program for generalization

- Incorporate peers

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