

Treating Severe Problem Behavior

A Focus on Strengthening Socially Important Behavior

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For more information go to:

www.practicalfunctionalassessment.com

Specific Process Commitments and Aims

safety

understanding

trust

holistic

progressive

high expectations

skill development

contextual fit

balanced relationships

First, we learn about the child and contexts in which problem behavior is most and least likely with an open-ended interview

Case Example:

From Santiago et al. (2016) *JADD*

Zeke, 14 years old, PDD-NOS

Interview suggested that Zeke engaged in SIB and aggression....

when

in order to

Antecedent

→ **Behavior**

→ **Consequence**

Possible establishing operations (EOs) → **Problem Behavior**

→ *Possible reinforcers*

Second, we conduct an analysis to directly understand what is influencing problem behavior

Interview-Informed Synthesized Contingency Analysis

Single-test condition

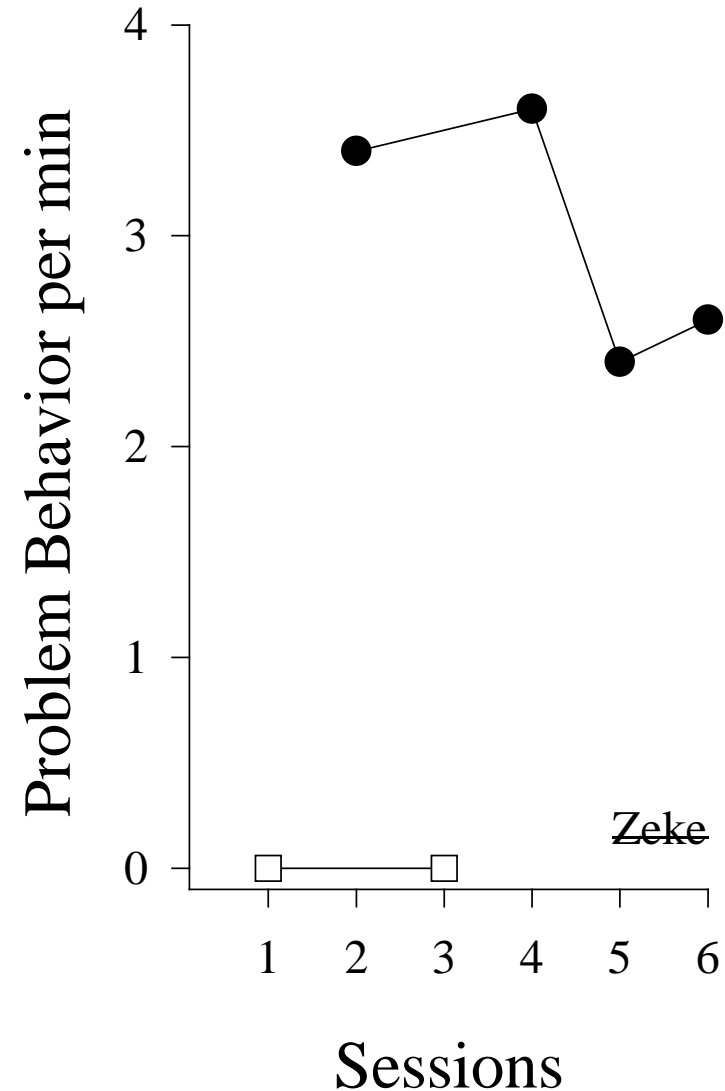
Individualized test conditions

Synthesized contingencies

Reinforce precursors to and dangerous behavior

Test-matched control

IISCA: Two condition analysis explicitly designed from an open-ended interview



Functional Analysis

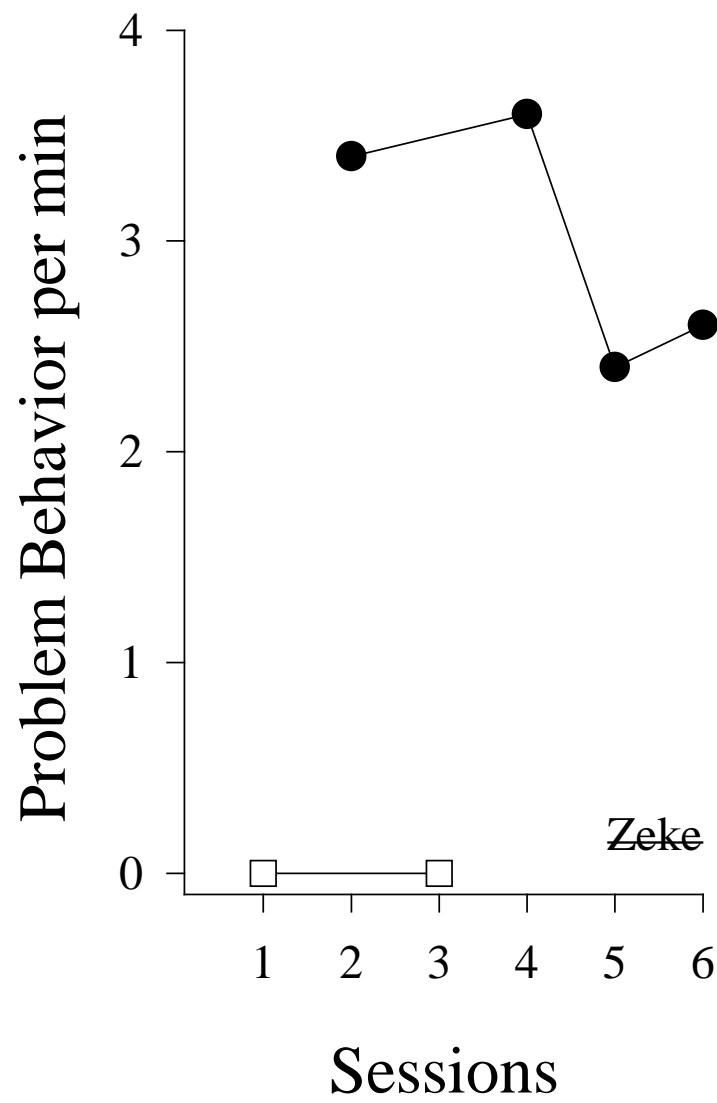
Zeke

14-year old boy

**diagnosed with
Autism**

**Engaged in Severe
SIB and Aggression**

**1:1 in Specialized
School**



Treatment Analysis

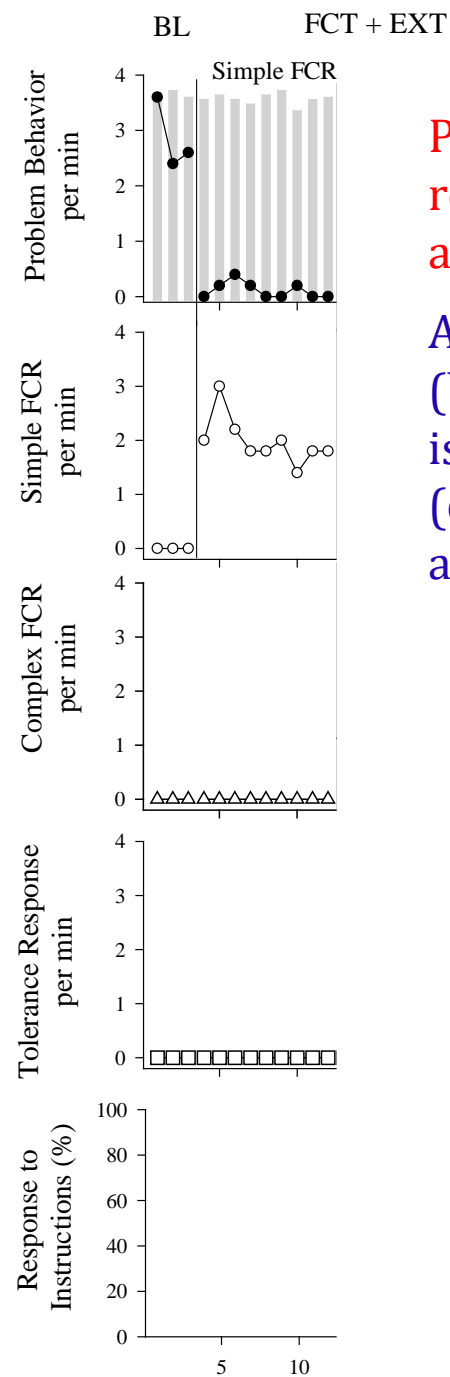
Zeke

14-year old boy

diagnosed with Autism

Engaged in Severe SIB and Aggression

Process in School



Problem behavior no longer yields the reinforcers (escape to child-directed play and teacher attention)

A simple response (button press: "My way please") is prompted and reinforced with (escape to child-directed play & teacher attention)

Treatment Analysis

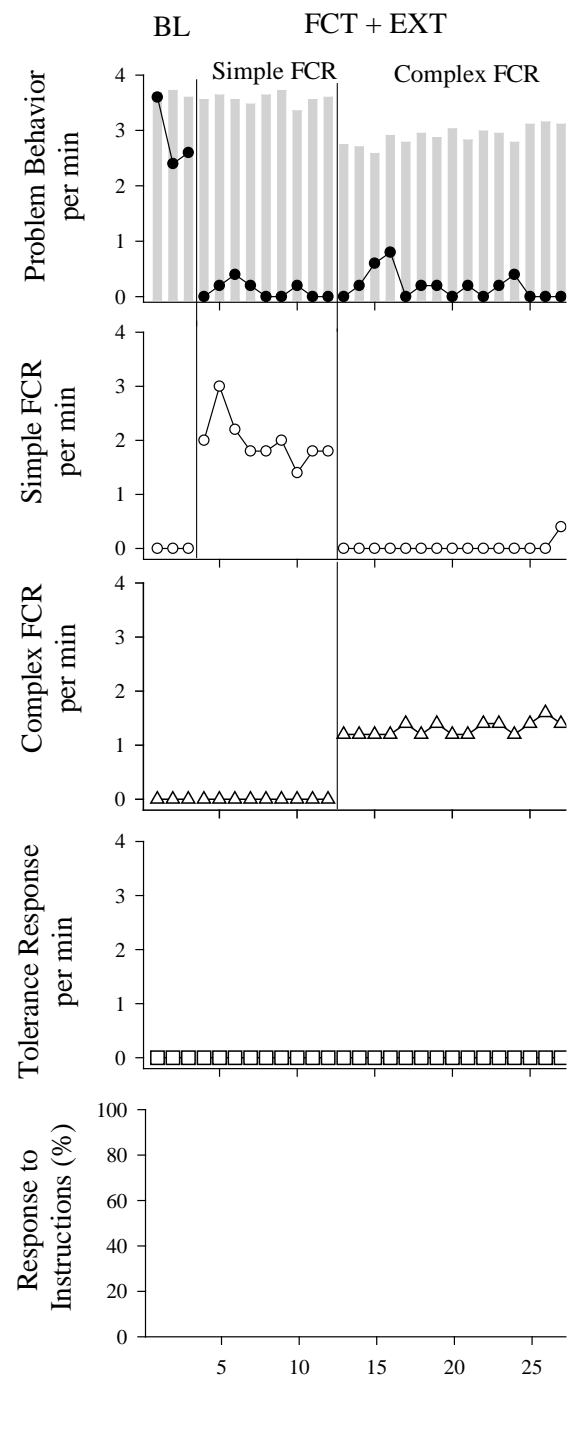
Zeke

14-year old boy

diagnosed with Autism

Engaged in Severe SIB and Aggression

Process in School



A more interactional response
(shoulder tap,
wait for teacher acknowledgement,
two-button press:
May I have / My way please")
is prompted and reinforced

Treatment Analysis

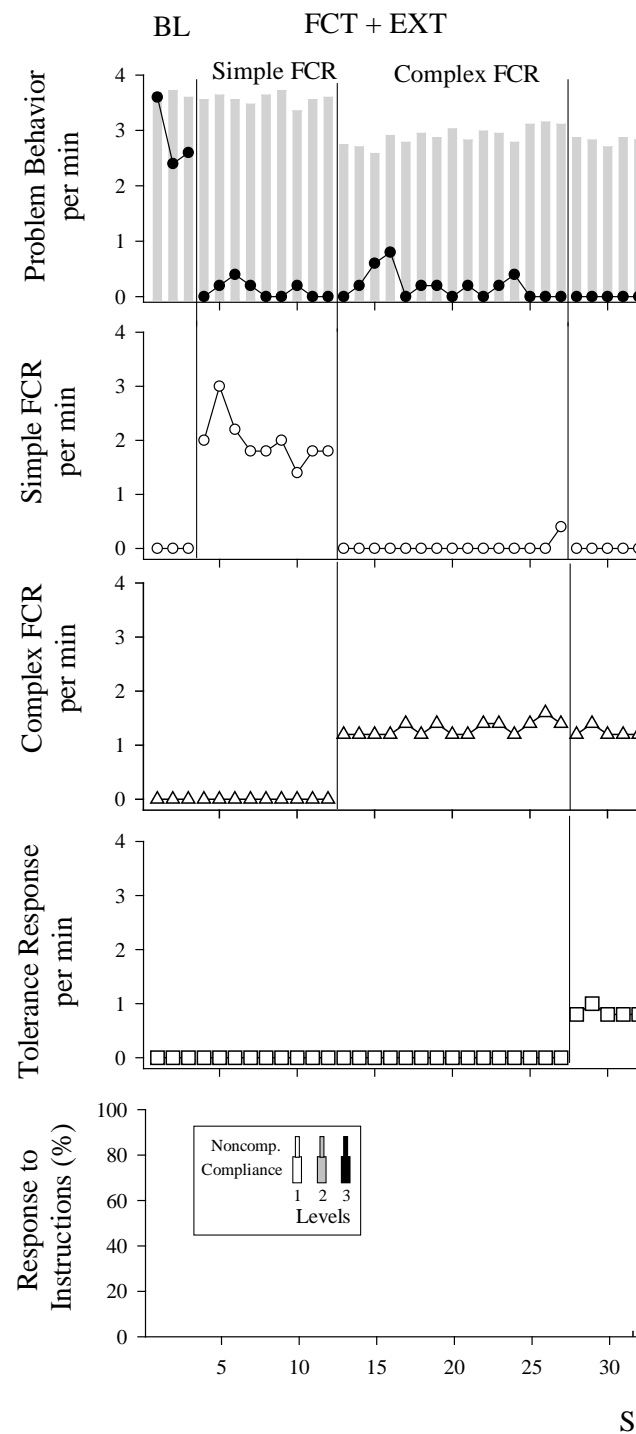
Zeke

14-year old boy

diagnosed with Autism

Engaged in Severe SIB and Aggression

Process in School



Denial and Delay Tolerance Training

Now, FCRs are reinforced half the time.
The other half, the teacher denies the bid
(e.g., says's no, do your work without me,
please)

Responses to disappointment
are prompted and reinforced:
(Take a breath and nodding yes)

Cues of disappointment,
Delays to reinforcement, and
unpredictable outcomes
have now been introduced!

Treatment Analysis

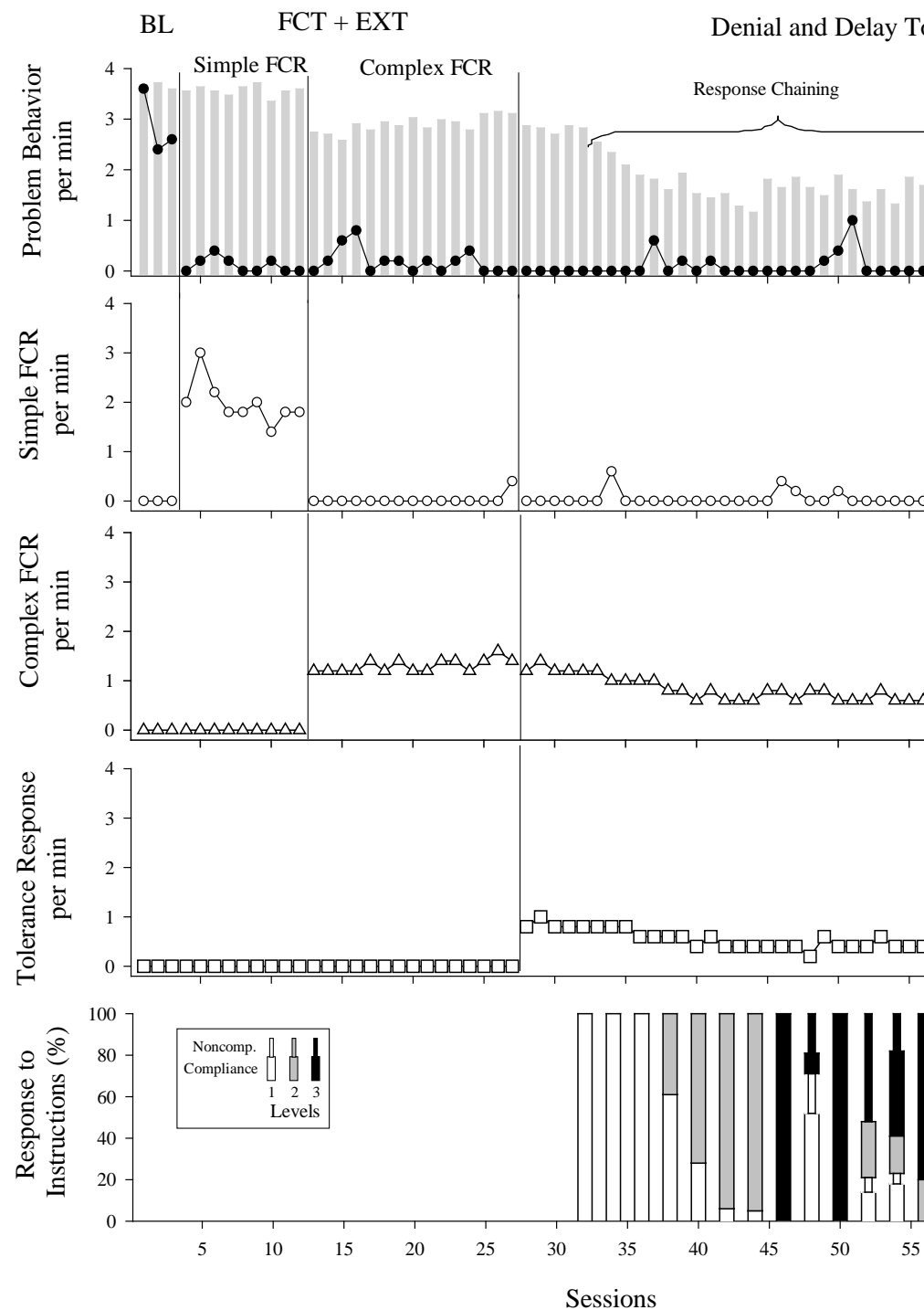
Zeke

14-year old boy

diagnosed with Autism

Engaged in Severe SIB and Aggression

Process in School



Now, FCRs are reinforced 1/3 of the time.

TRs are reinforced 1/3 of the time.

And compliance with progressively longer and more challenging instructions is reinforced

Treatment Analysis

Zeke

14-year old boy

diagnosed with Autism

Engaged in Severe SIB and Aggression

Process in School

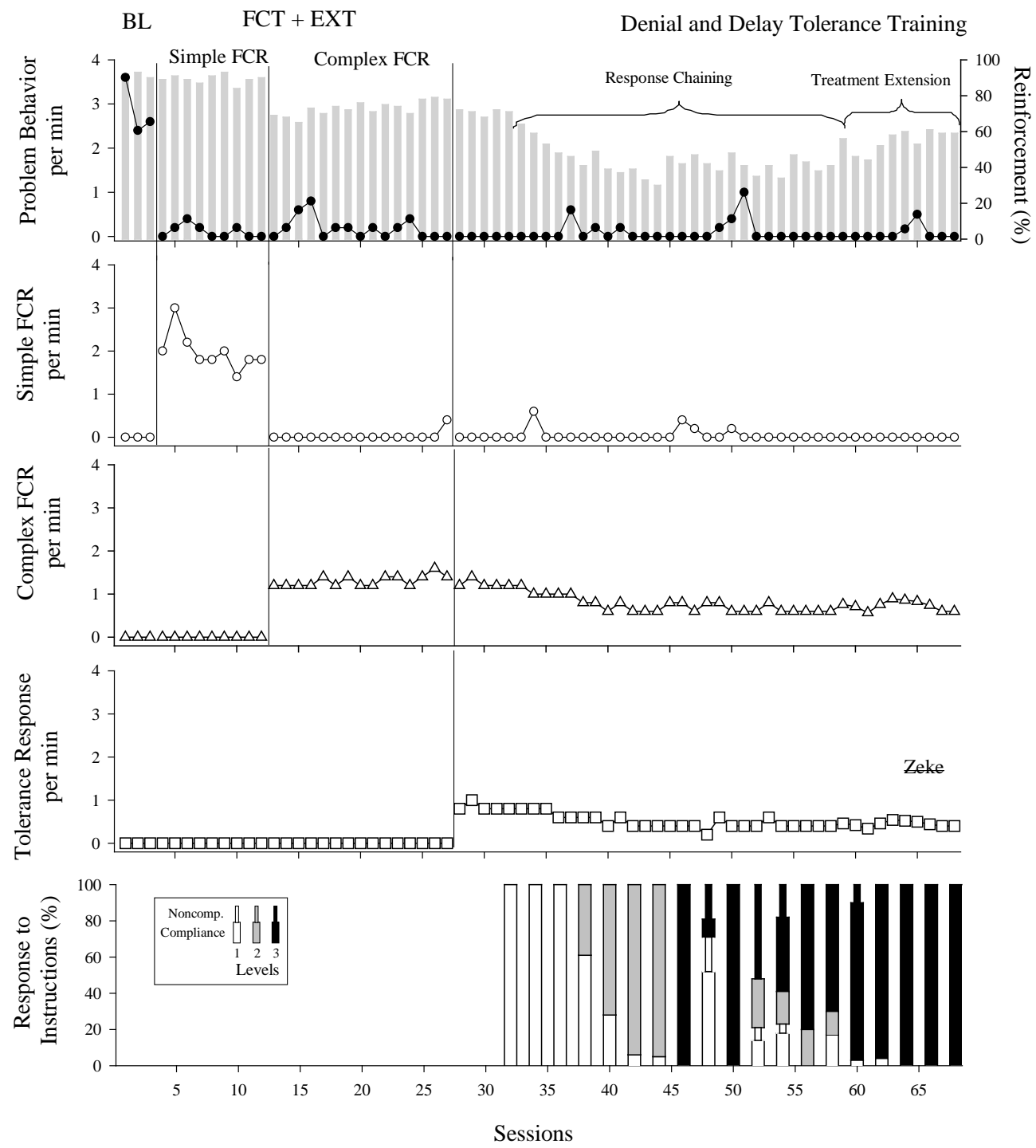


Table 2 Social acceptability questionnaire results

Questions		Zeke			
		R1	R2	R3	
1. Acceptability of assessment procedures		7	7	7	
2. Acceptability of treatment packages		7	5	7	
3. Satisfaction with improvement in problem behavior		7	6	7	
4. Helpfulness of consultation		7	7	7	
Comfort levels					
	Pre Rx R1	Post Rx	Pre Rx R2	Post Rx	Pre Rx R3
Zeke					
1. Taking away preferred items	3	7	7	7	5
2. Taking away preferred items/activities then immediately presenting work	3	7	6	6	3
3. Taking away preferred items/activities and attention	3	6	2	5	2
Overall mean					
Pre					
Post					
3.9					
6.4					

7 = highly acceptably, highly satisfied, very helpful, or very comfortable

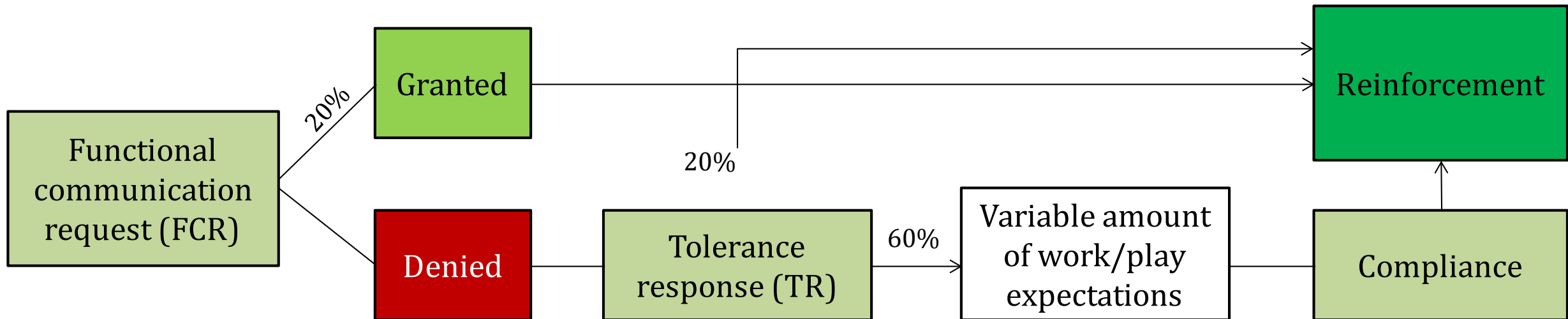
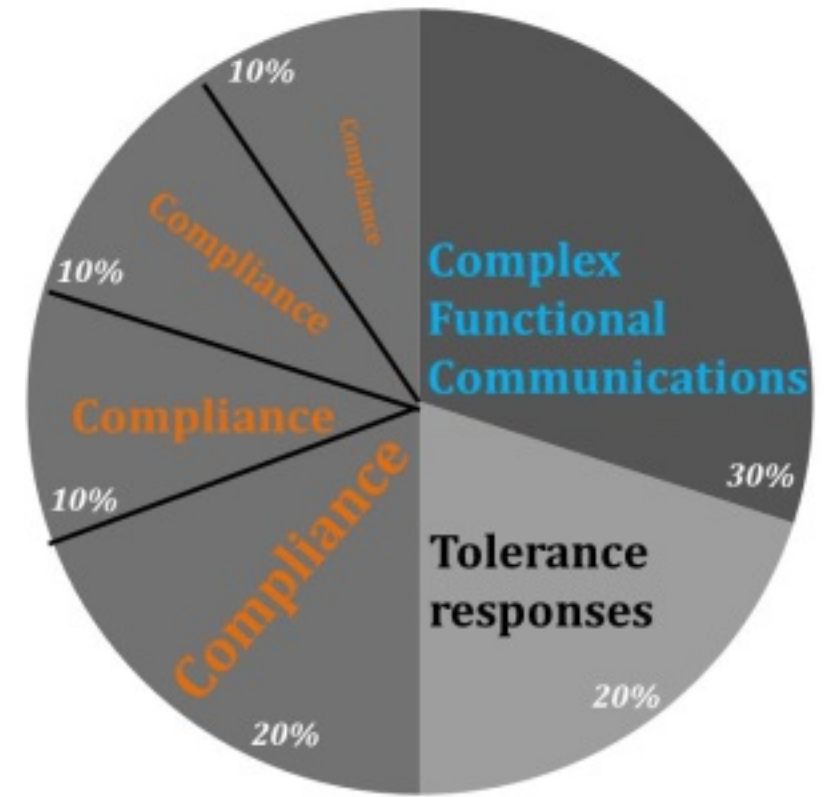
1 = not acceptable, not satisfied, not helpful, or not comfortable

R2, R2, and R3 denote the three responders including parents and teachers

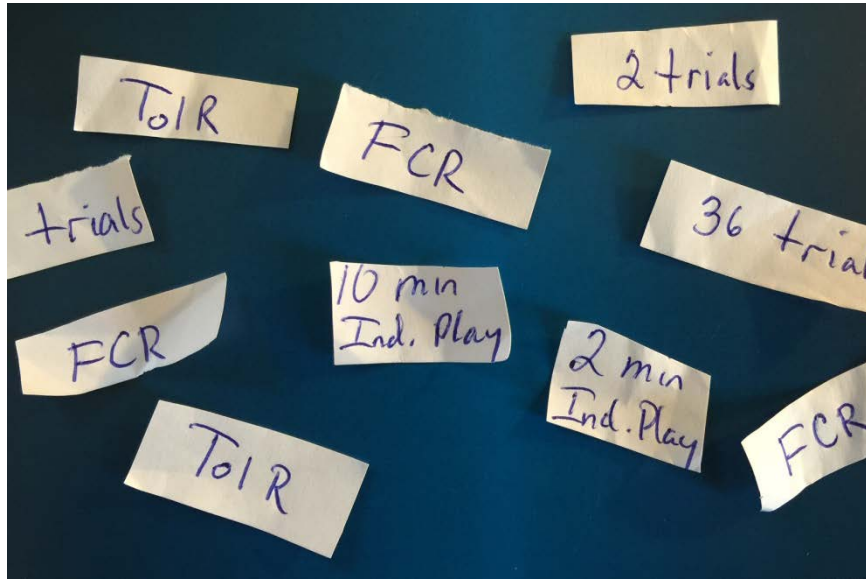
What is the treatment????

Intermittent and unpredictable
reinforcement of life skills:

Functional Communication
Delay/denial toleration
Compliance



Treatment Implementation



1. Put these in your pocket
2. Pull one out while child is experiencing their reinforcers
3. Keep it to yourself
4. Require that behavior next time

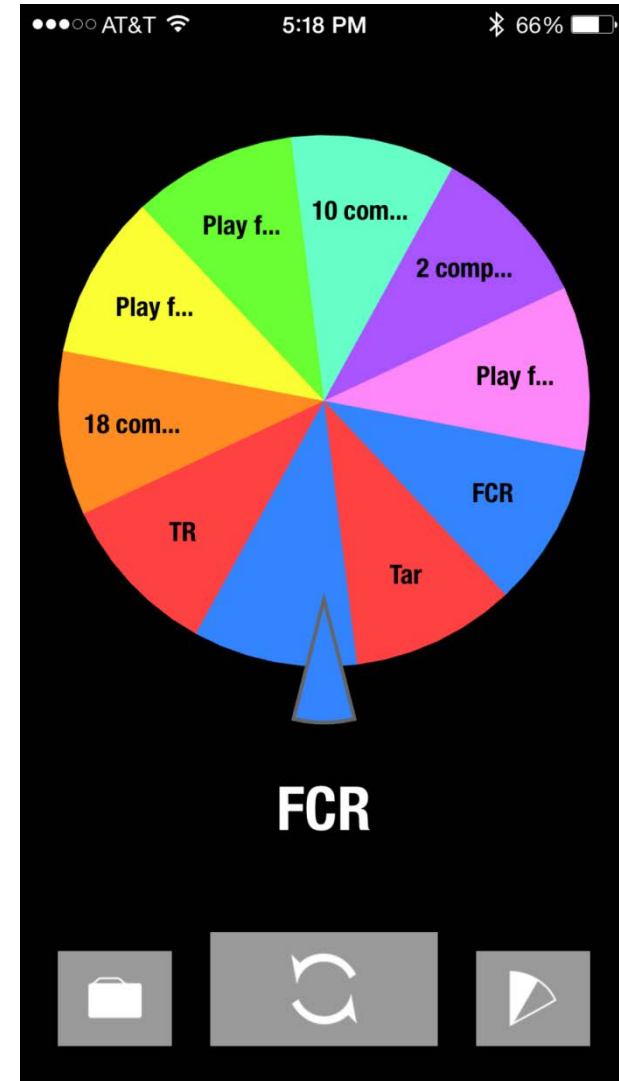
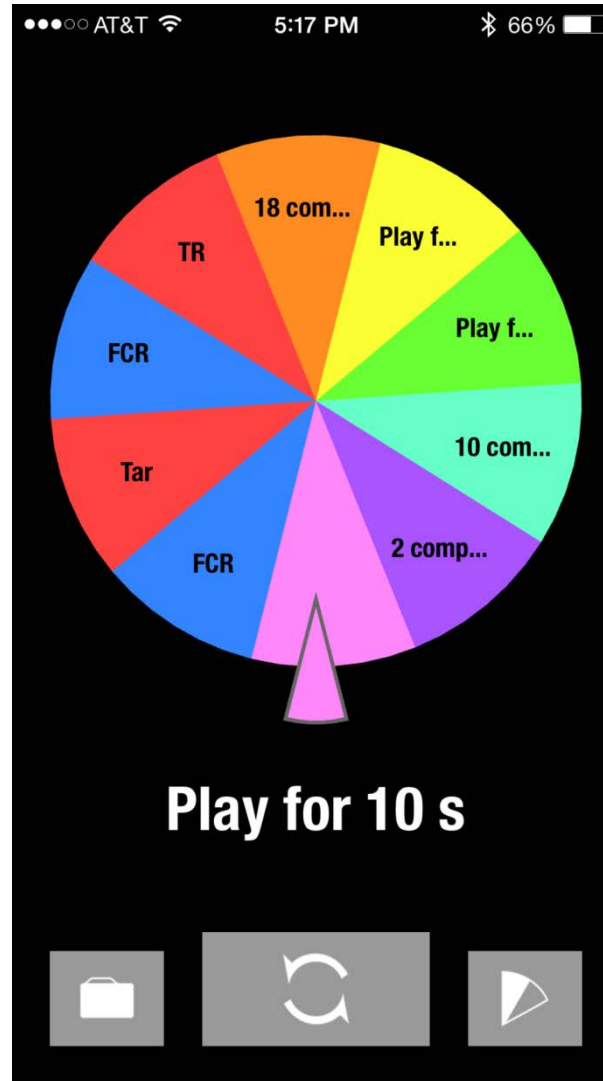
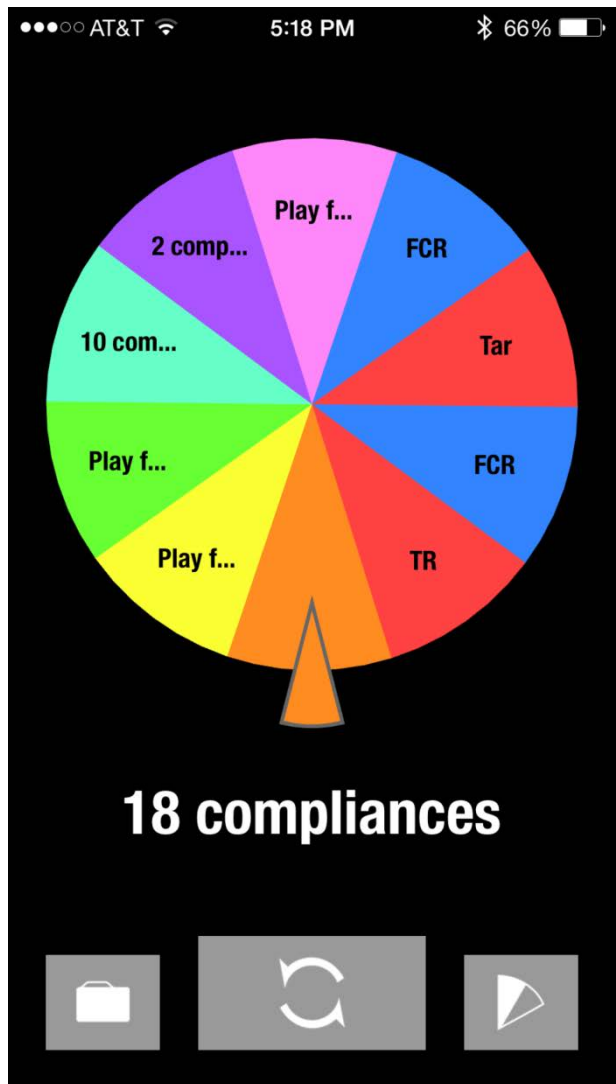
***Materials not needed:**

Laminate
Laminating machine
Glue guns
Vis a vis markers
Velcro
Tokens
Token boards
Timers
Stickers
Candies
Anything that was not already in
the child's environment!

App called “Names in a Hat”



App called "Roundom"



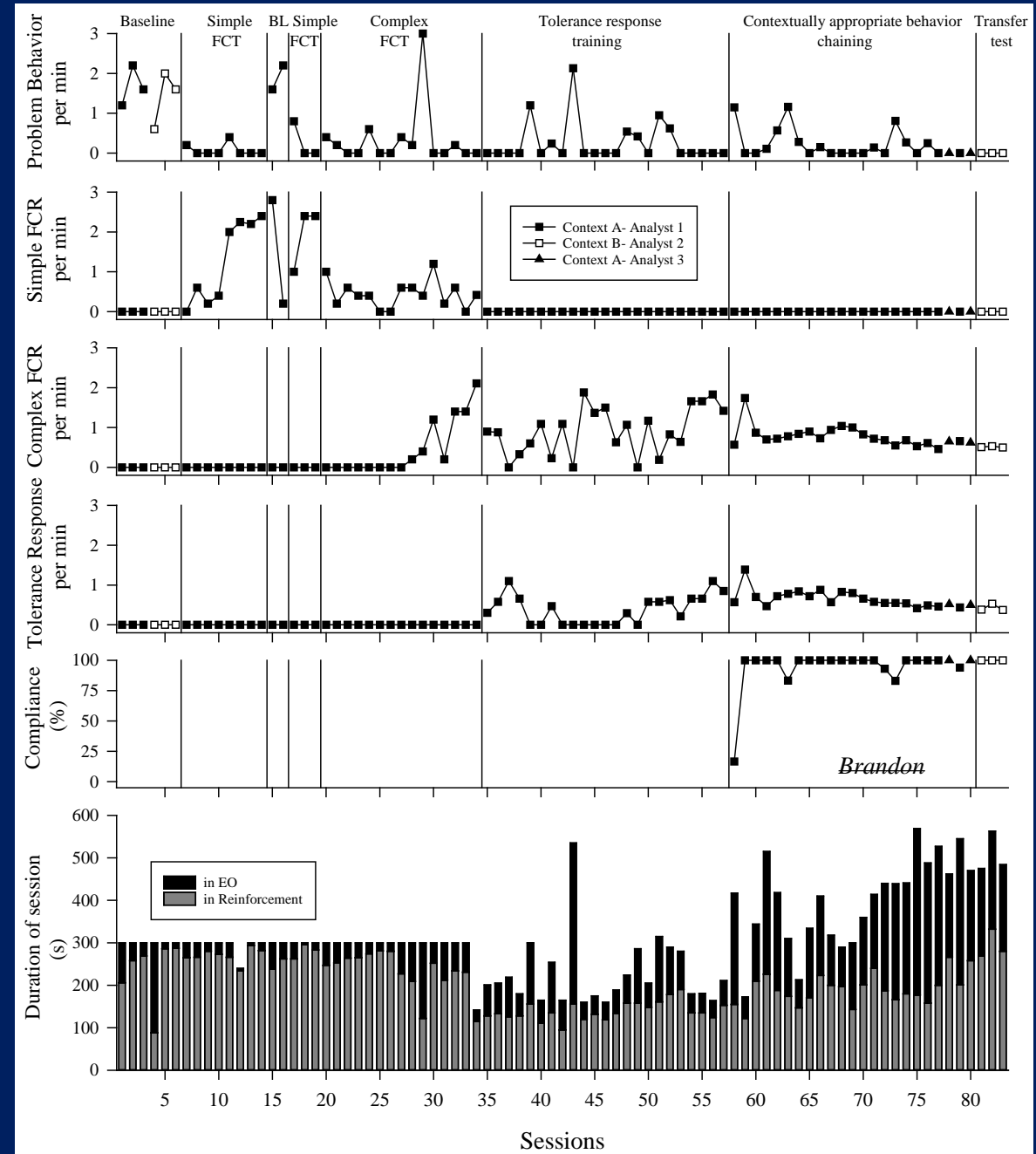
SBT - Brandon

Age: 3

Diagnosis: None

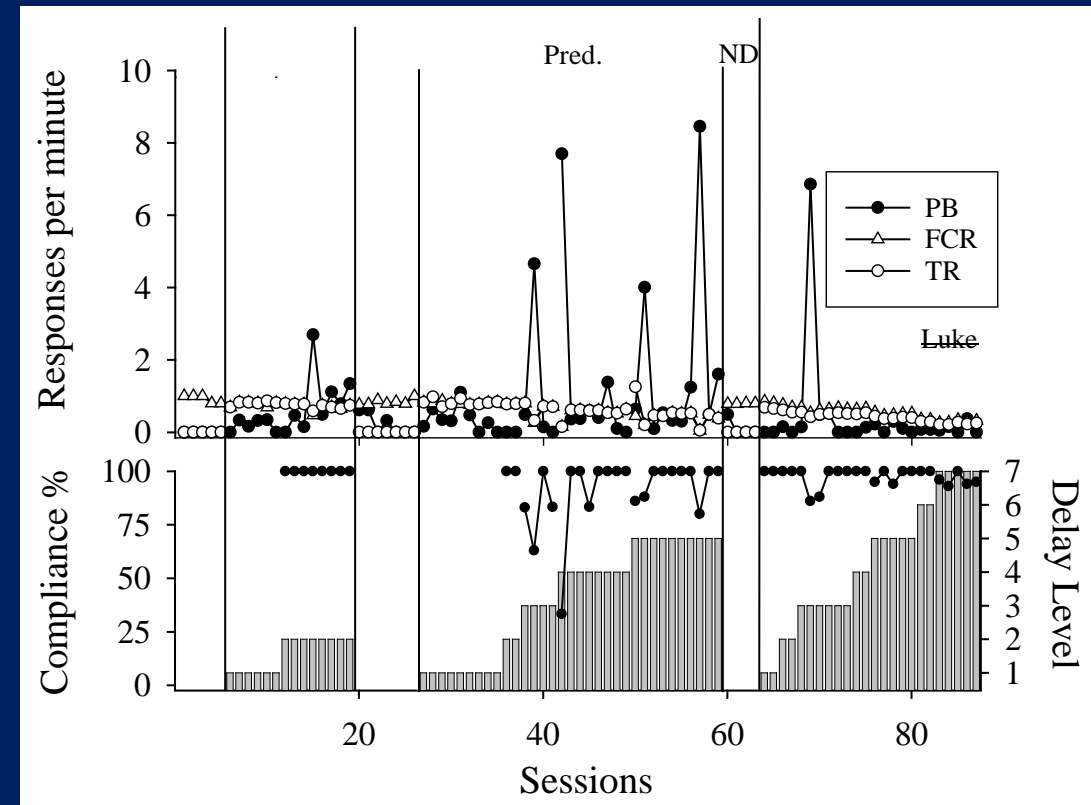
Language Level: Speaks in Short Sentences

Referred for: Aggression, Meltdowns, Noncompliance



SBT - Luke

- Age: 4
- Diagnosis: Autism, Attention Deficit Hyperactivity Disorder
- Language Level: Fully fluent speech
- Referred for: Aggression, Property Destruction, Meltdowns

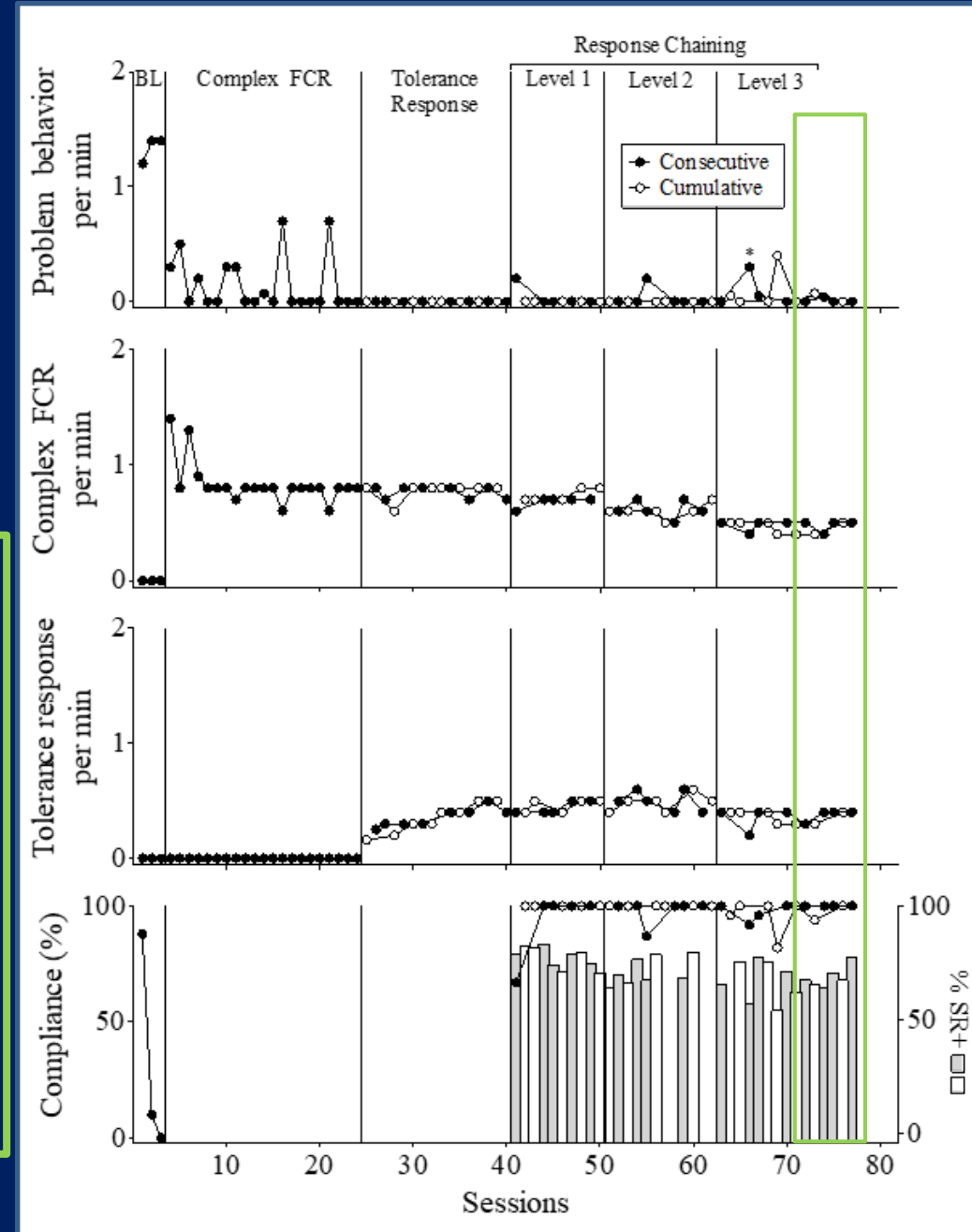


CAB
Chaining

SBT - Diego

- Age: 11
- Diagnosis: Autism
- Language Level: Speaks in Short Sentences
- Referred for: Self-injurious behavior, Aggression, Property Destruction

CAB Chaining



Good alternatives to Full Extinction:

1. Partial Extinction

escape always available

PB = escape to nothing vs.

Skills = escape to everything

2. No extinction with full assent

*Client can leave practice sessions with all of their stuff
at anytime*

They surprisingly don't very often

probably due to preference for earned sr

Can we do this process without bursts or physical management (i.e., without extinction procedures)?

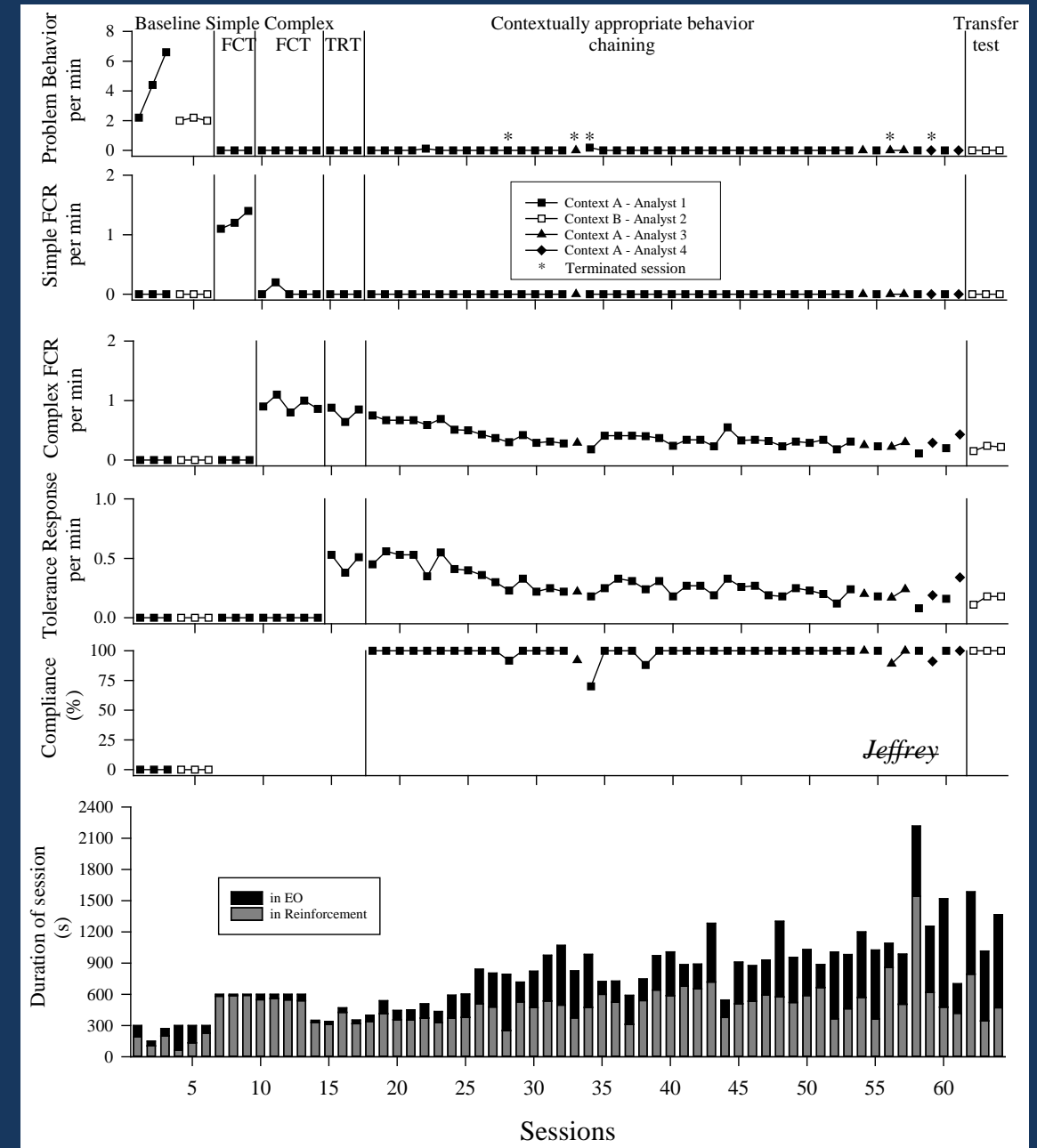
Will children choose to participate in these processes if they can leave with all of the reinforcers at anytime?

Can the process be made unassailable to skeptics/critics?

TREATMENT- Jeffrey

Enhanced Choice Model

- Initial choice to enter clinic or go home
- Second choice to practice skills or chill in waiting room
- Continual choice to leave at anytime with his stuff
 - Either to waiting room or home
- Choice intermittently embedded in work and break periods
- All in context of progressively building skills with intermittent and unpredictable reinforcement



Parent feedback (following transfer to home)

1. Rate the extent to which you are satisfied with the amount of improvement seen in Jacob's problem behavior in our clinic.

1 2 3 4 5 6 7
Not Satisfied Highly Satisfied

2. Rate the extent to which you are concerned about Jacob's ongoing problem behavior at home.

1 2 3 4 5 6 7
Not Concerned Highly Concerned

3. Rate the extent to which you have found the assessment and treatment provided by our team helpful to your home situation up to this point.

1 2 3 4 5 6 7
Not helpful Very Helpful

4. Rate the extent to which you feel confident applying the same strategies you have seen in our clinic, when addressing Jacob's problem behavior at home.

1 2 3 4 5 6 7
Not Confident Very Confident

Parent feedback (following transfer to home)

5. How comfortable were you **taking away Jacob's preferred activities (e.g., electronics) and asking him to do something else (e.g., clean up, do his homework)** BEFORE visiting the clinic?

1 2 3 4 5 6 ~~7~~
Not comfortable Very comfortable

6. How comfortable are you **taking away Jacob's preferred activities (e.g., electronics) and asking him to do something else (e.g., come to dinner, do his homework)** now (AFTER visiting the clinic)

1 2 3 4 5 6 7
Not comfortable Very comfortable

7. How comfortable were you **taking Jacob to public places** BEFORE visiting the clinic?

1 2 3 4 5 6 7
Not comfortable Very comfortable

8. How comfortable are you **taking Jacob to public places** now (AFTER visiting the clinic)?

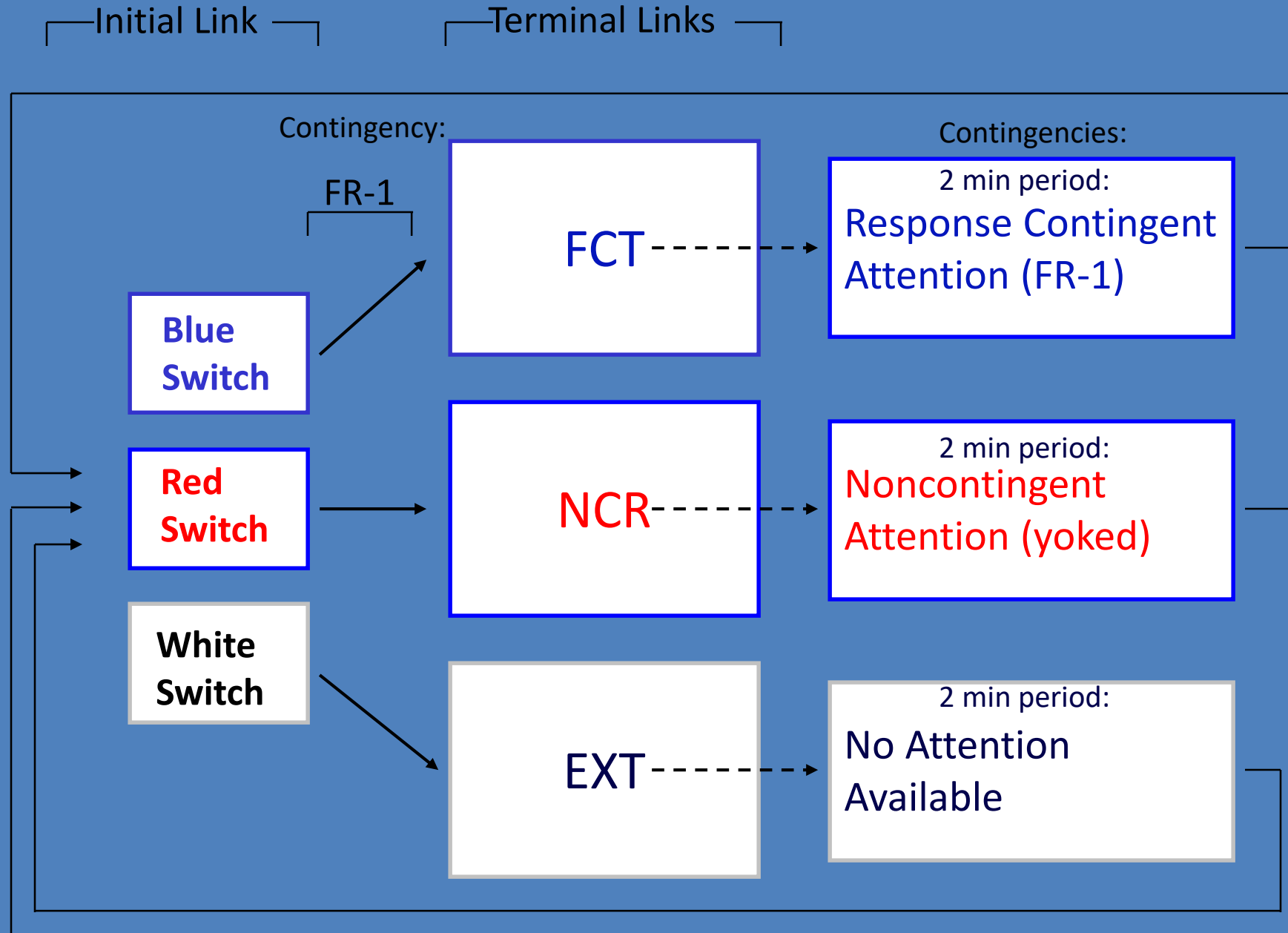
1 2 3 4 5 6 7
Not comfortable Very comfortable

Why would children choose to participate in treatment?

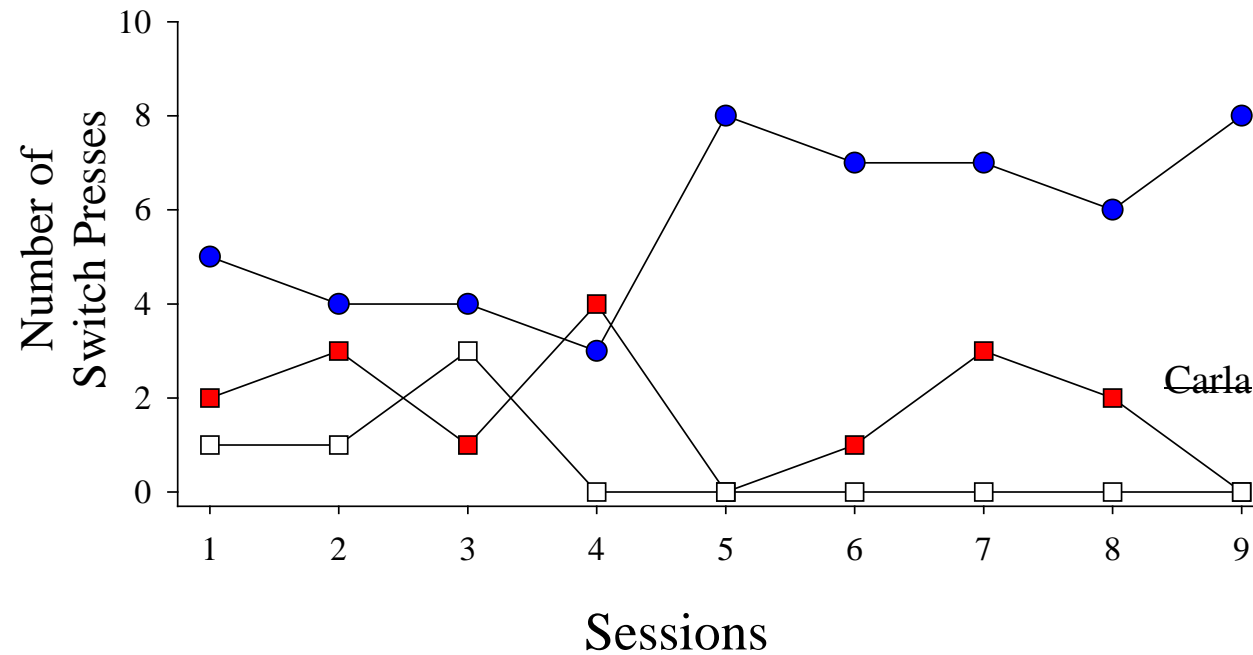
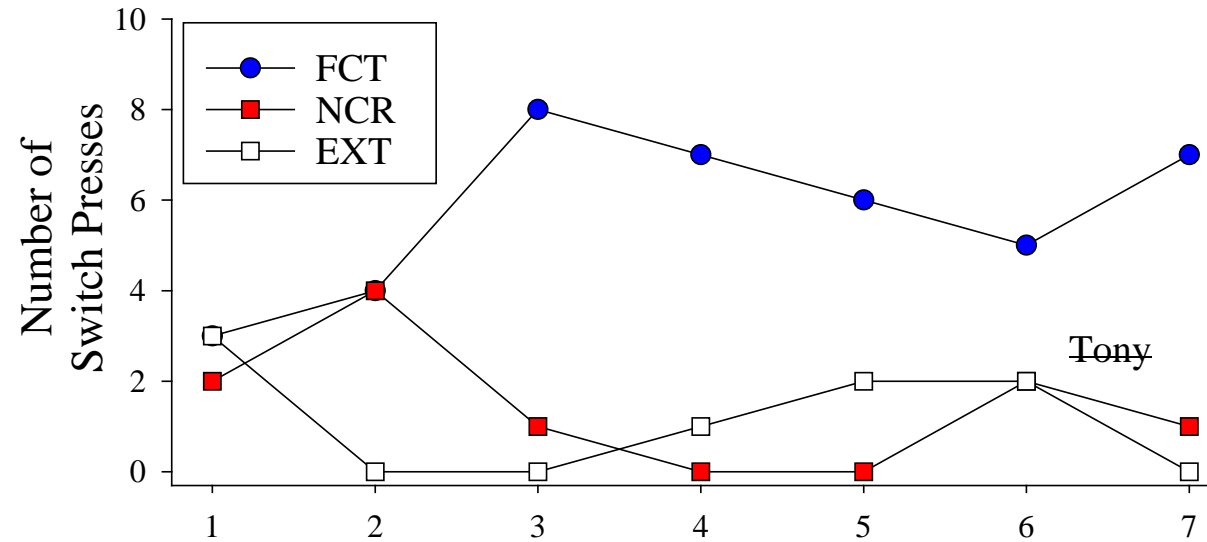
**Perhaps due to the universal preference for contingent
over noncontingent reinforcers**

(i.e., due to a preference for *yearning and earning*)

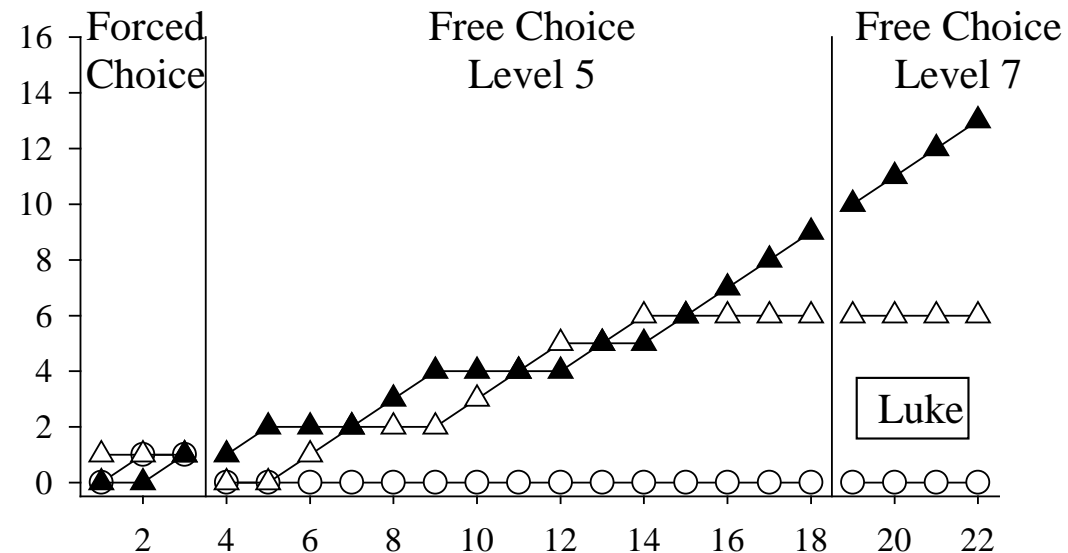
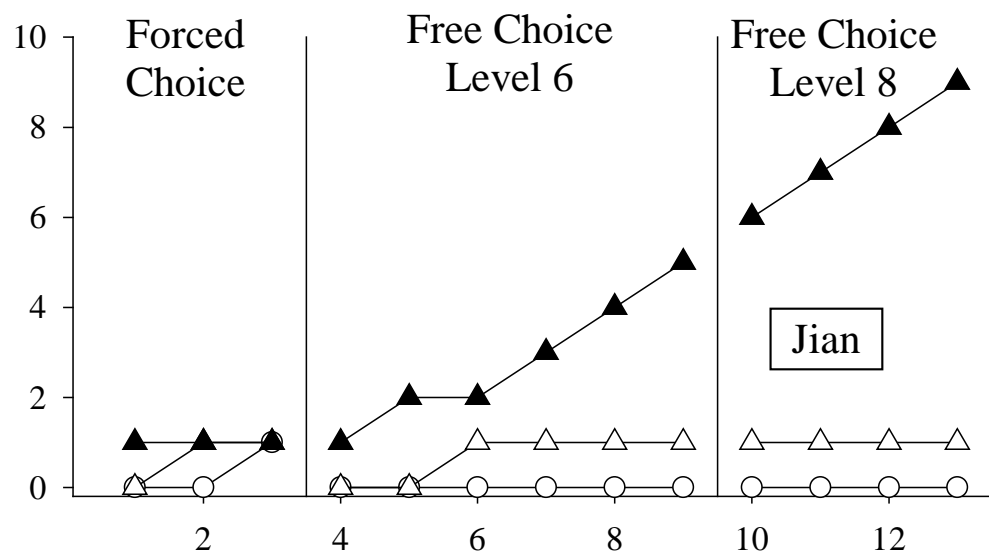
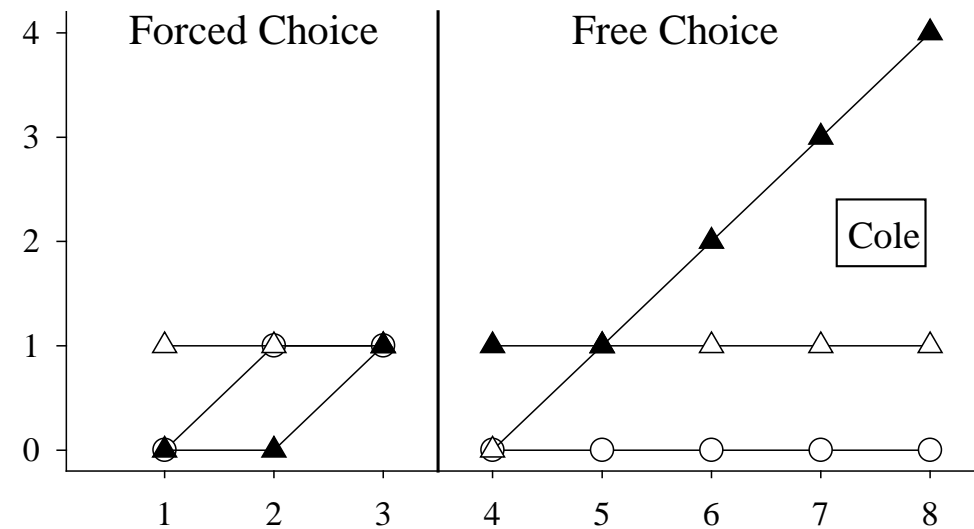
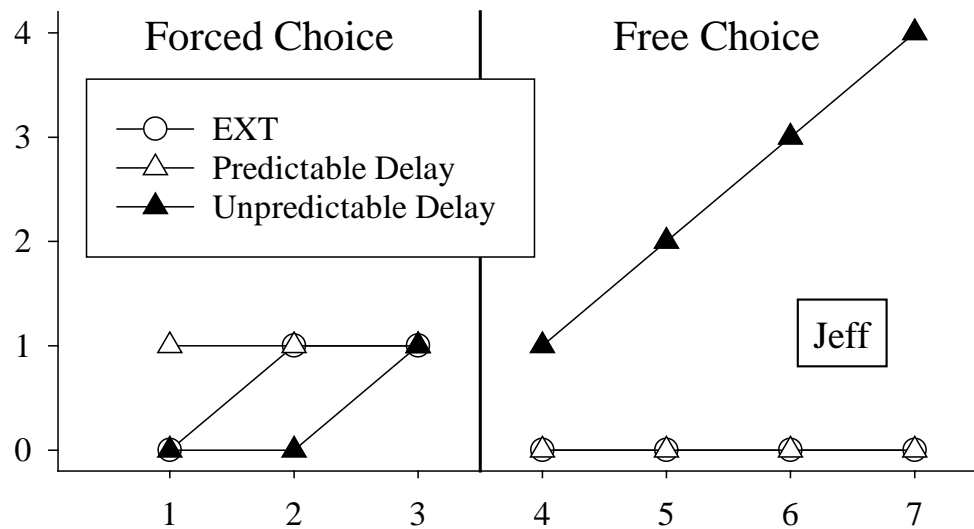
From Hanley, Piazza, Fisher, & Contrucci, 1997, *JABA*



Preference for contingent over noncontingent reinforcement



Cumulative Initial-Link
Selections



Treatment Review

Personalized and **synthesized** reinforcers delivered
intermittently, unpredictably, and exclusively
following various chain lengths of appropriate
behavior that includes
communication, toleration, and compliance

- ✓ The treatment is implemented in the most challenging context that is sufficiently convenient to repeatedly arrange
 - Referred to as the “two Cs” of context

- ✓ The treatment process begins by providing **personalized** and **synthesized** reinforcers for each and every problem behavior and then for each and every communication response
 - *Trust is built by arranging for easy responses to reliably and immediately result in all reinforcers*

✓ The first communication response taught is referred to as the *Simple Functional Communication Response (sFCR)*

✓ The key features of an sFCR:

- Simple (Horner & Day, 1991)
- Novel (Derby et al., 1998)
- Omnibus (“My way”) (Hanley et al., 2014)
- Can be effectively prompted

✓ The key features of initial teaching:

- Prompt SFC prior to full introduction of EO (Ward et al., 2018)
 - Base on within-session results of IISCA
- Prompt response immediately and after problem behavior (Landa et al., 2018)

✓ Shaping of the functional communication response continues
(Ghaemmaghami et al., 2018)

....*(usually, but not always)* until it contains:

- An obtaining a listener response (e.g., “Excuse me”)
- A generative autoclitic frame (e.g., “May I have ____”)
- A social nicety
- Proper tone, pace, volume, articulation

It is then referred to as a

Complex Functional Communication Response (cFCR)

(e.g., “Excuse me [pause, wait for acknowledgement], May I have my way, please?)

✓ The cFCR is sometimes differentiated into specific mands

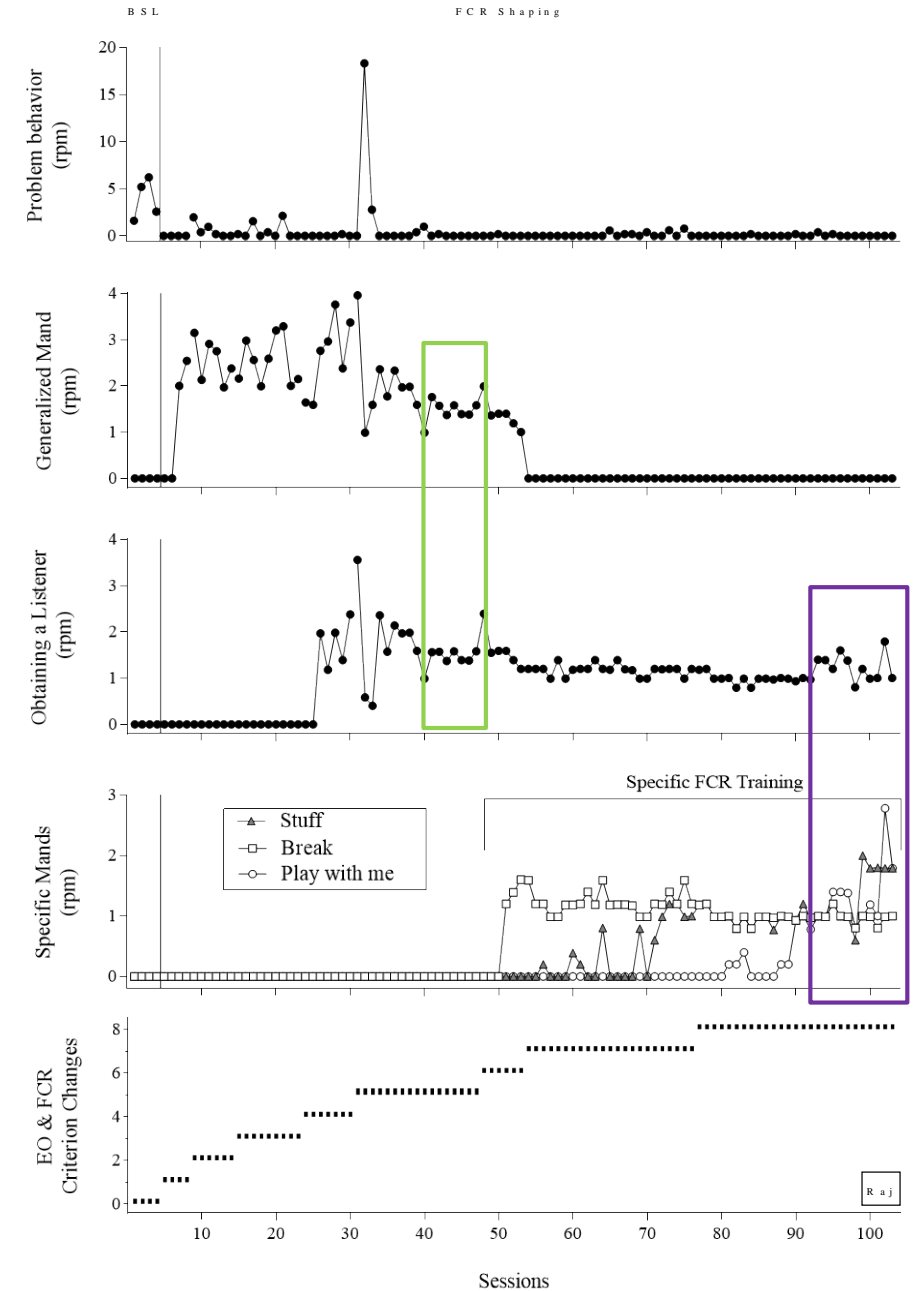
(Ward et al., 2018)

- An *obtaining a listener* response
- A *break* response
- An *access to preferred toys* response
- An *attention recruitment* response

(e.g., ““Excuse me [pause, wait for acknowledgement], May I have a break, please?
“...May I have my stuff please””Will you play with me”)

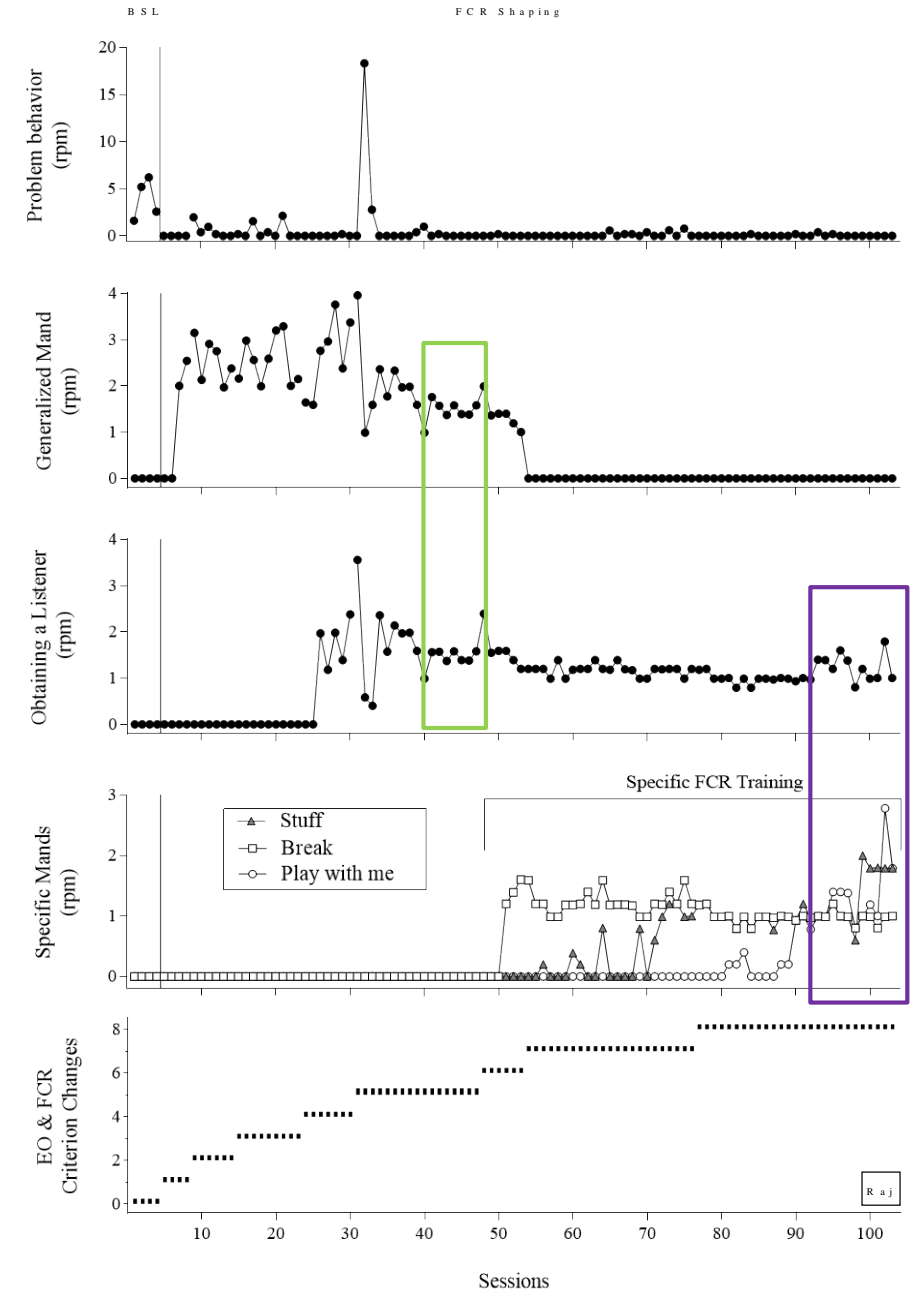
FCT – Raj

Age: 5 Diagnosis: Autism Language Level: Single word utterances
Referred for: Self-Injury, Aggression, Property Destruction



FCT – Raj

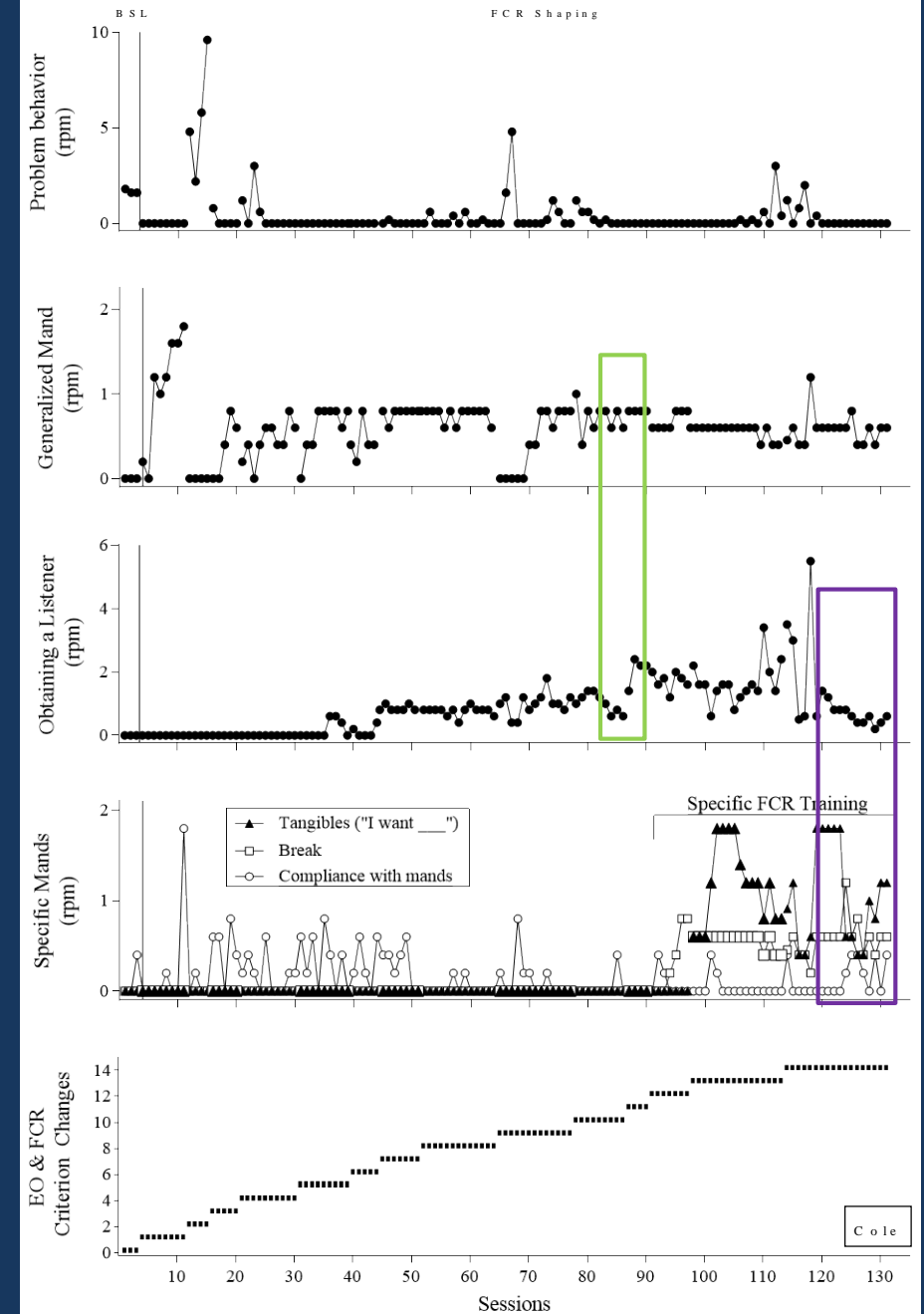
Age: 5 Diagnosis: Autism Language Level: Single word utterances
Referred for: Self-Injury, Aggression, Property Destruction



FCT – Cole

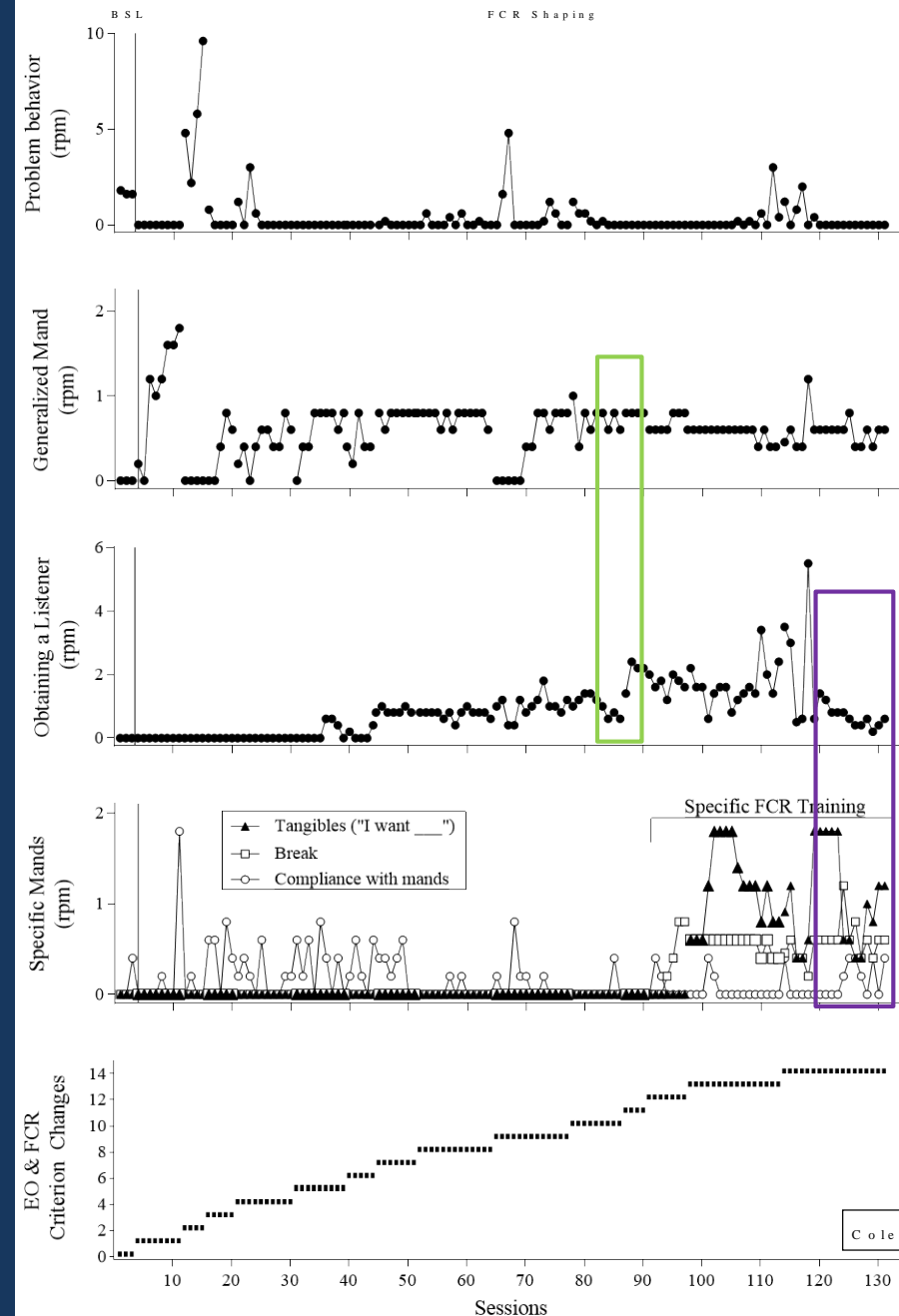
Age: 8 Diagnosis: Autism Language Level: Fully Fluent Speech

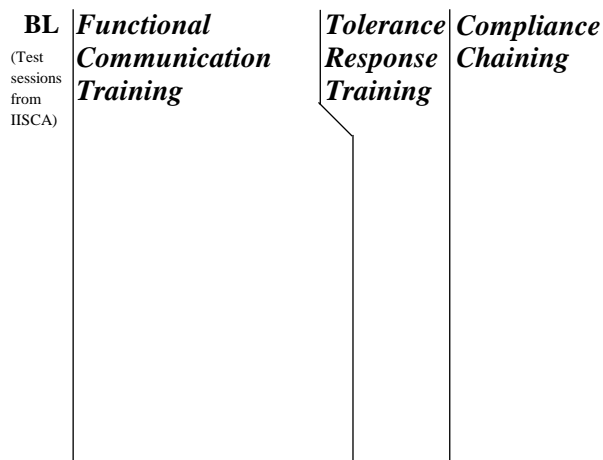
Referred for: Self-Injury, Aggression, Property Destruction



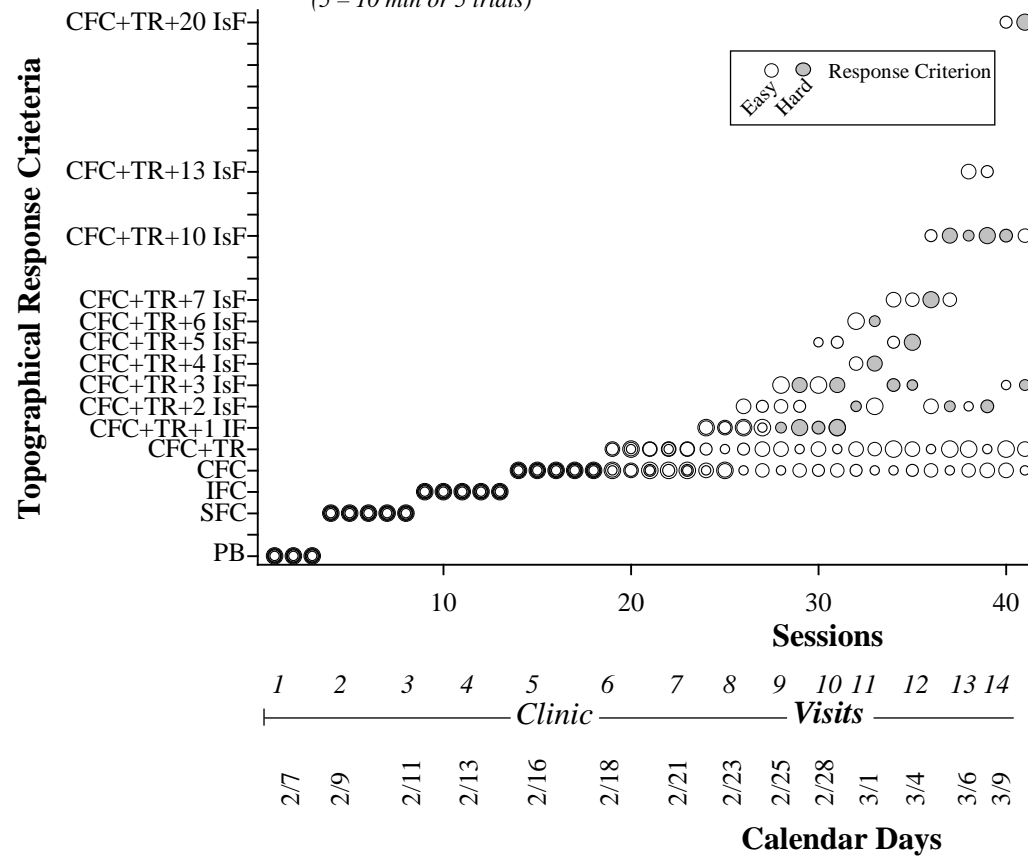
FCT – Cole

Age: 8 Diagnosis: Autism Language Level: Fully Fluent Speech
Referred for: Self-Injury, Aggression, Property Destruction





Experts Implementing
In Practice Contexts
During Short Sessions
(5 – 10 min or 5 trials)



Important TIPS

1. Always provide immediate sr for some FCRs
2. Teach an appropriate response to cues of delay, denial, or disappointment
3. **Progressively increase the average amount of behavior (not just time) required to terminate the delay**
4. **Terminate the delay for various amounts of behavior (sometimes expect very little behavior sometimes request larger or more complex types of behavior during the delay)**
5. Probably best to not signal how much behavior is required to terminate the delays

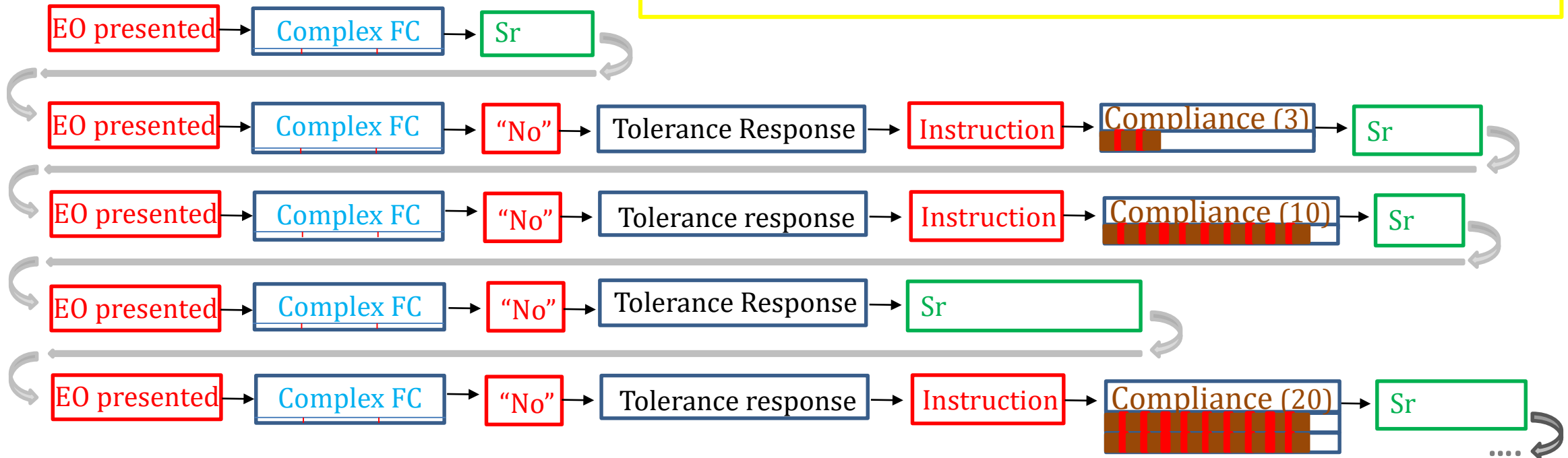
At the end of treatment:

✓ *many appropriate behaviors do not yield reinforcement immediately, but there is no delay to reinforcement per se*

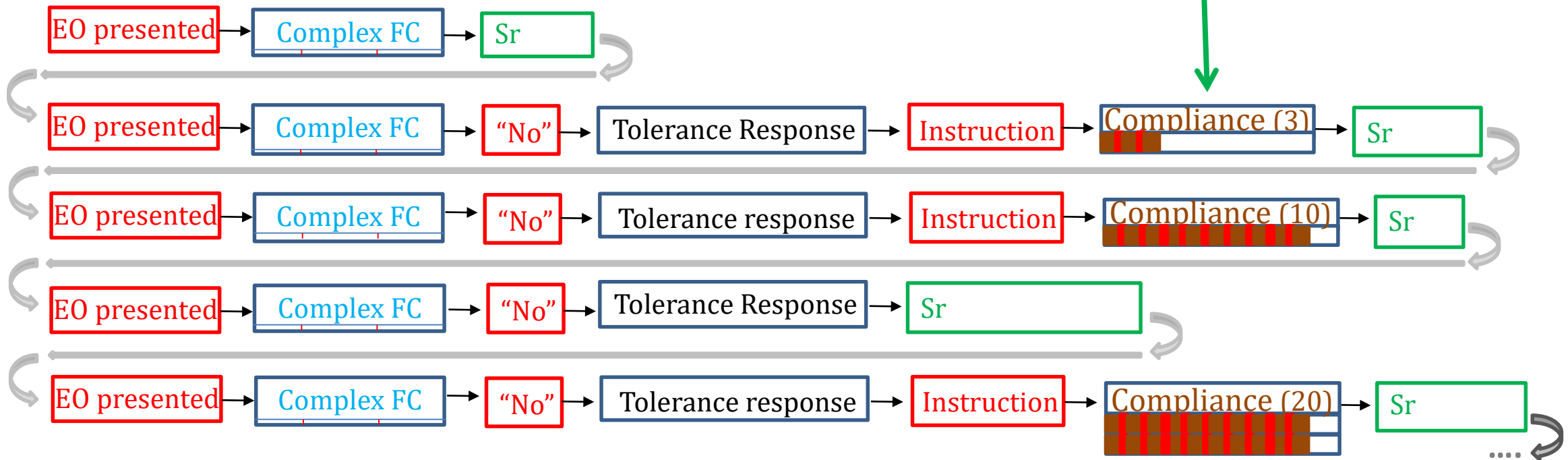
Due to chaining of appropriate responses



And, non-reinforcement of a response (e.g., a mand) induces another appropriate response (e.g., tolerance response) as opposed to problem behavior



✓ The average chain length is progressively increased, but communication, toleration, and **short/unexpected** compliance chains are reinforced sometimes, even at the end of treatment



**Shorties
never go
away.**

**This way
we keep
hope
alive!**

**Surprise
Shorties
are a
must!**

Let's review the workbook.

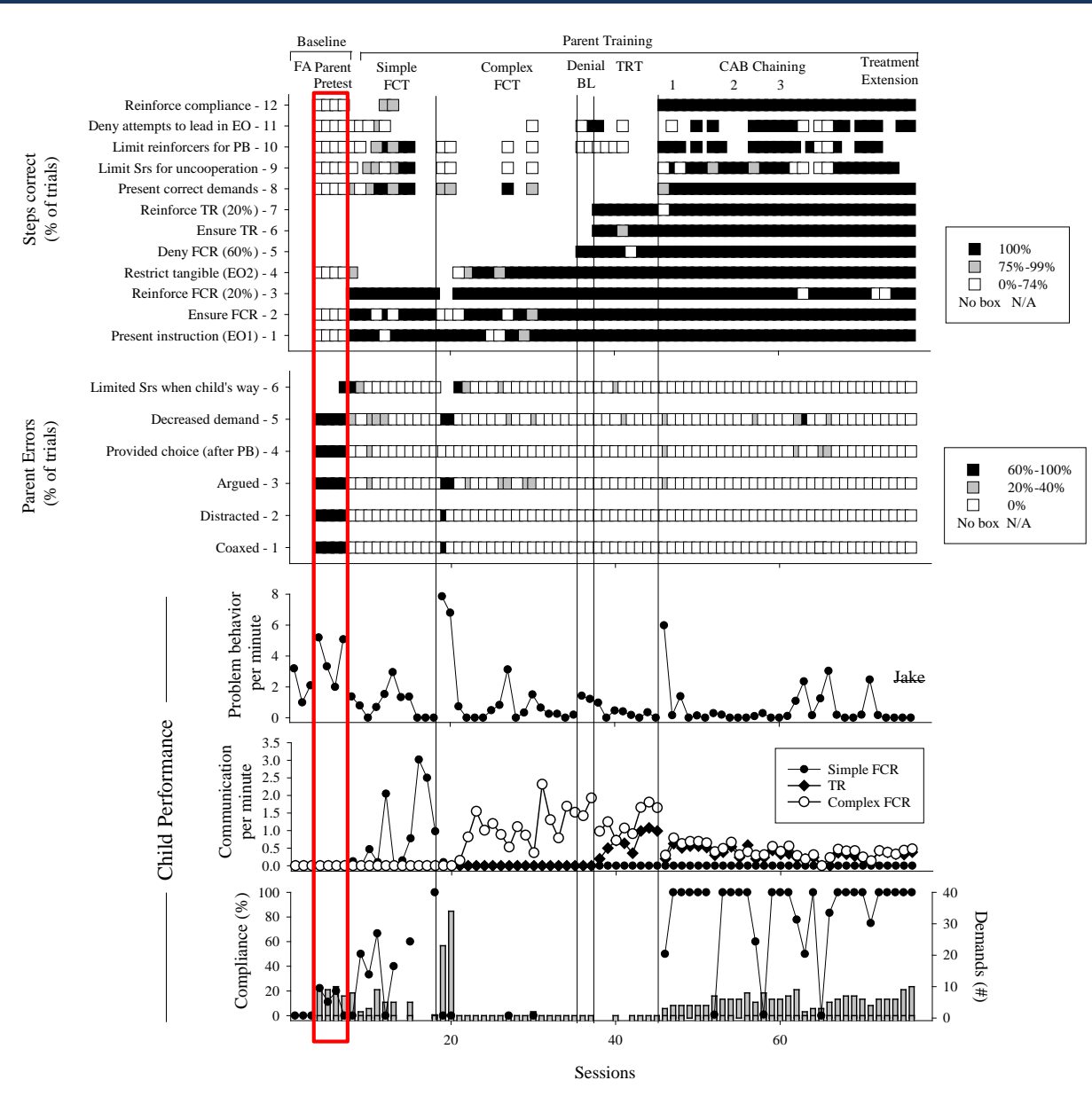
Detailed Description of the Skill-Based Treatment of Problem Behavior Process (developed by G. P. Hanley, October, 2017)

Step	Objectives	Responses Reinforced	Sessions	Progressively Changing Response Requirements				
				<i>Tr 1 Sr:</i>	<i>Tr 2 Sr:</i>	<i>Tr 3 Sr:</i>	<i>Tr 4 Sr:</i>	<i>Tr 5 Sr:</i>
1	Verifying hunch / Building Trust	PB	1--3	PB	PB	PB	PB	PB
2	Shifting to Appropriate / Building Trust	sFCR ("My way")	4--6	sFCR	sFCR	sFCR	sFCR	sFCR
3	Improving Form	iFCR ("May I have my way please")	7--8	iFCR	iFCR	iFCR	iFCR	iFCR
4	Improving Form	cFCR ("Excuse me" [...] "May I have my way please")	9--10	cFCR	cFCR	cFCR	cFCR	cFCR
5	Preparing for Inevitable Disappointment	cFCR/TR ("Okay, no problem")	11	cFCR	TR	cFCR	TR	cFCR
5	Preparing for Inevitable Disappointment	cFCR/TR	12	TR	cFCR	TR	cFCR	TR
5	Preparing for Inevitable Disappointment	cFCR/TR	13	cFCR	cFCR	TR	TR	cFCR
6	Preparing for Inevitable Ambiguity	cFCR/TR/eCAB (Adult expected work or play)	14	cFCR	TR	1eCAB	cFCR	1eCAB
6	Preparing for Inevitable Ambiguity	cFCR/TR/eCAB	15	TR	1eCAB	cFCR	1eCAB	cFCR
7	Preparing for Inevitable Ambiguity	cFCR/TR/eCAB	16	cFCR	TR	1eCAB	2eCAB	1eCAB
7	Preparing for Inevitable Ambiguity	cFCR/TR/eCAB	17	1eCAB	2eCAB	cFCR	TR	1eCAB
8	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	18	cFCR	1hCAB	2eCAB	TR	3eCAB
8	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	19	TR	2eCAB	cFCR	3hCAB	1hCAB
9	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	20	5eCAB	cFCR	1hCAB	TR	3eCAB
9	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	21	TR	5eCAB	cFCR	3hCAB	1eCAB
10	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	22	2hCAB	cFCR	4eCAB	TR	6eCAB
10	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	23	cFCR	6hCAB	TR	4hCAB	2eCAB
11	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	24	cFCR	5eCAB	3hCAB	7eCAB	TR
11	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	25	3hCAB	cFCR	7eCAB	TR	5hCAB
12	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	26	TR	10eCAB	cFCR	2eCAB	7hCAB
12	Building Stamina while Keeping Hope Alive	cFCR/TR/e&hCAB	27	cFCR	2hCAB	7eCAB	10hCAB	TR
13	Finding the Balance / Task Revaluing	cFCR/TR/e&hCAB	28	2eCAB	10hCAB	cFCR	13eCAB	TR
13	Finding the Balance / Task Revaluing	cFCR/TR/e&hCAB	29	TR	13eCAB	2hCAB	cFCR	10hCAB
14	Finding the Balance / Task Revaluing	cFCR/TR/e&hCAB	30	3eCAB	10eCAB	20hCAB	cFCR	TR
14	Finding the Balance / Task Revaluing	cFCR/TR/e&hCAB	31	cFCR	3hCAB	10eCAB	TR	20hCAB
15	Extending Effects to Relevant People	cFCR/TR/e&hCAB w/RP	32	cFCR	5eCAB	3hCAB	7eCAB	TR
15	Extending Effects to Relevant People	cFCR/TR/e&hCAB w/RP	33	3hCAB	cFCR	7eCAB	TR	5hCAB
16	Extending Effects to Relevant People	cFCR/TR/e&hCAB w/RP	34	TR	1TR	cFCR	2eCAB	7hCAB
16	Extending Effects to Relevant People	cFCR/TR/e&hCAB w/RP	35	cFCR	2hCAB	7eCAB	10hCAB	TR

Parent Training – Jake (with Mother)

Age: 7 Diagnosis: **None** Language Level: **Fully fluent speech**

Referred for: **Property destruction**



Parent pretest

WNE Life Skills Clinic

Parent Implemented Skill-Based Treatment Data Sheet

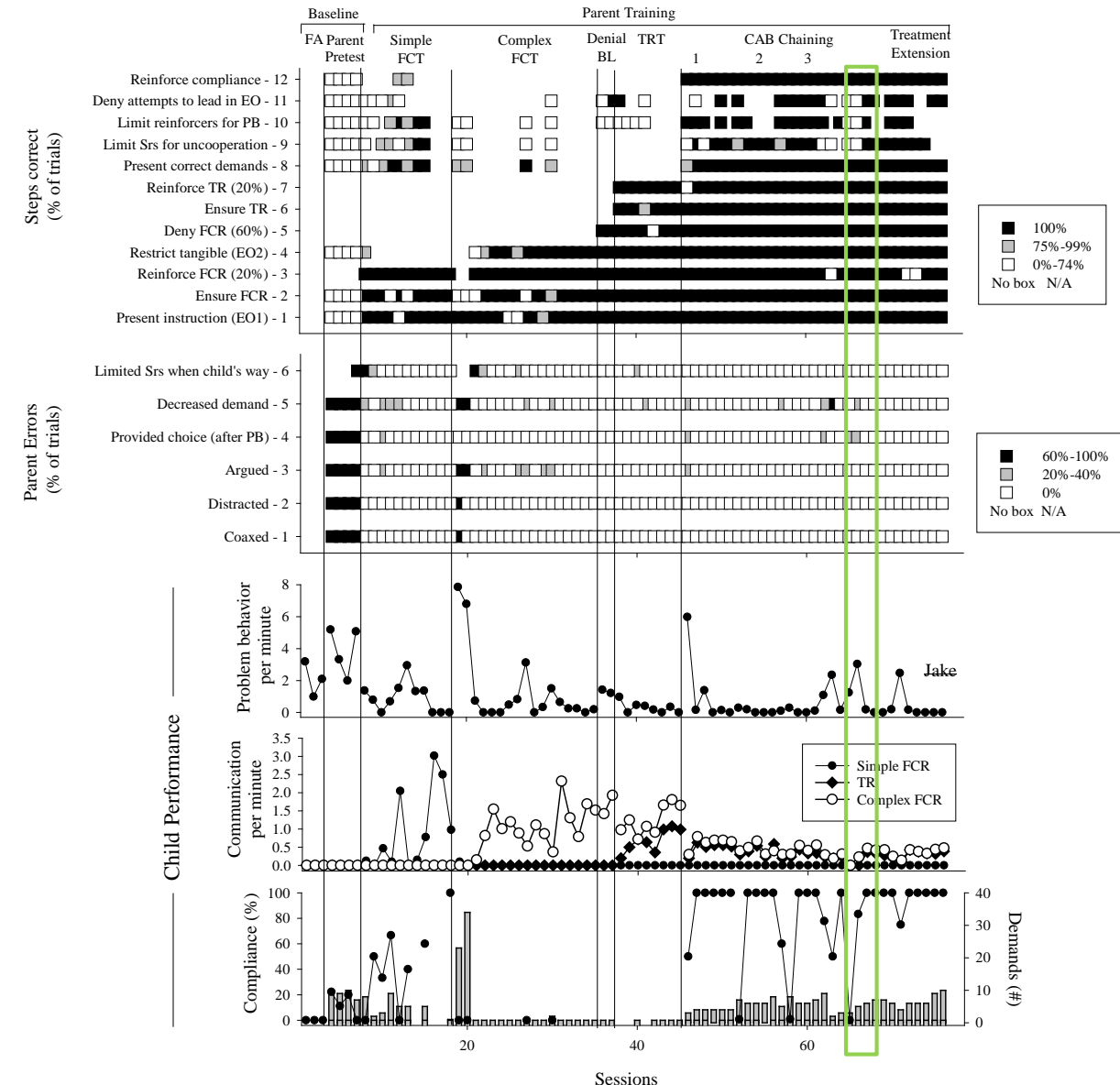
Data collector: _____ Date: _____ Session name: _____ Circle one: Primary IOA _____

Skill-Based Treatment	Context	Do:	Don't:
	Child-led time <i>(Their way)</i> (Sr interval)	A. _____ Be sure that many of your child's preferred items/activities are available B. _____ Be available to and engaged with your child (close in proximity, not distracted, and providing <i>high quality</i> attention in the manner your child prefers) C. _____ Honor all reasonable requests for items, your attention, or saying/doing things a particular way D. _____ Program 'child-led' for an appropriate amount of time (i.e., at least 20 s); it should not feel unnaturally short or long E. _____ If your child makes an unreasonable request, deny and re-direct to the items that are available	A. _____ Refrain from placing any demands, including instructions and questions (i.e., make it clear that you child is in charge and you will follow their lead) B. _____ Refrain from correcting your child (including providing feedback on past problem behavior) or the way they are engaging with an item/activity C. _____ Refrain from manipulating child's toys, unless following the child's lead D. _____ Refrain from reacting in any (obvious) way to ANY inappropriate behavior; do not attempt to redirect the child following inappropriate behavior, and refrain from offering choices or presenting different toys following inappropriate behavior
	Adult-led time <i>(Your way)</i> (EO interval)	F. _____ Make it clear that you are in control by delivering an instruction as you terminate Child-led time G. _____ Deliver clear, concise instructions to your child (e.g., put the blue ball in the bucket) H. _____ When delivering each instruction, use the 3-step prompting method: <i>Tell them what to do, (wait 3 seconds, show them what to do, (wait 3 seconds) help them do it.</i> I. _____ Only allow access to materials relevant to what your child is expected to do J. _____ Only provide attention relevant to what your child is expected to do (prompting within the 3-step method and praise for compliance)	E. _____ Do not <i>negotiate, argue, rationalize</i> or <i>cajole</i> ; it is best not to respond to anything your child says during this period to make it clear to him/her that they are not on "their way" and that the only behavior that will be rewarded is compliance with your instruction (or the skills of functional communication and toleration) F. _____ Do not comply with child attempts to lead instruction (e.g., "I want to clean up before I sit at the table") G. _____ Do not present demands as questions/options H. _____ Do not react in any (obvious) way to ANY inappropriate behavior, simply proceed with the 3-step prompting or agreed upon alternative I. _____ Do not change the demand contingent on problem behavior
	Transition from adult-led time to child-led time (the	K. _____ Moving from adult-led time to child-led time should only occur following one of these three skills: <i>functional communication, delay/denial toleration, or compliance with your instruction/expectation following denial</i> L. _____ It is important that each of the skills "payoff" some of the time. As such, always reward functional communication and toleration	J. _____ Do not foreshadow which skills will be reinforced or how many demands will need to be completed prior to earning child led time (i.e., keep it unpredictable) K. _____ Do not change your plans in response to your child's inappropriate behavior; namely, do not make your expectation easier if problem behavior is occurring (e.g. if your plan was to ask your child to

Parent Training – Jake (with Mother)

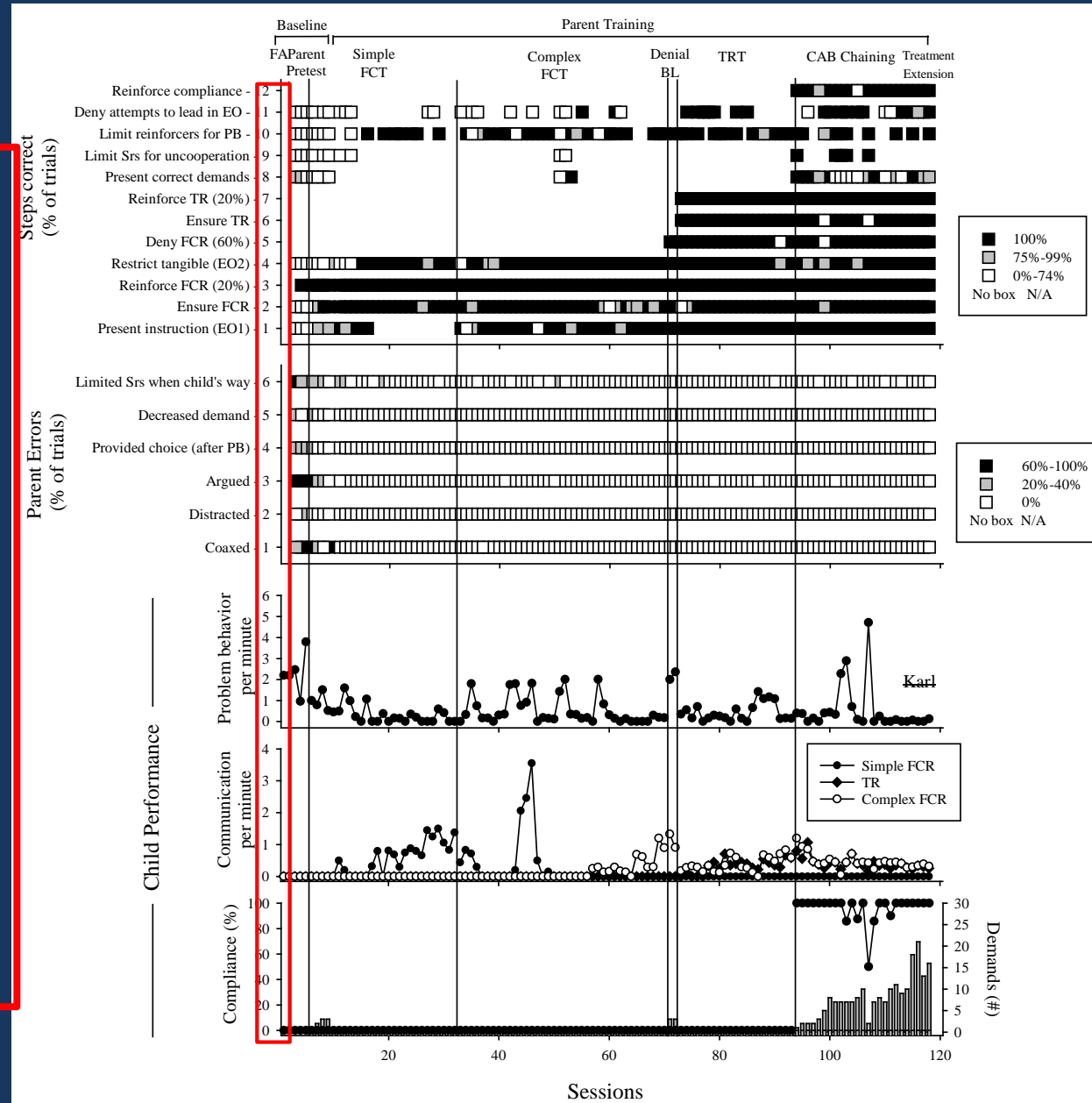
Age: 7 Diagnosis: **None** Language Level: **Fully fluent speech**

Referred for: **Property destruction**



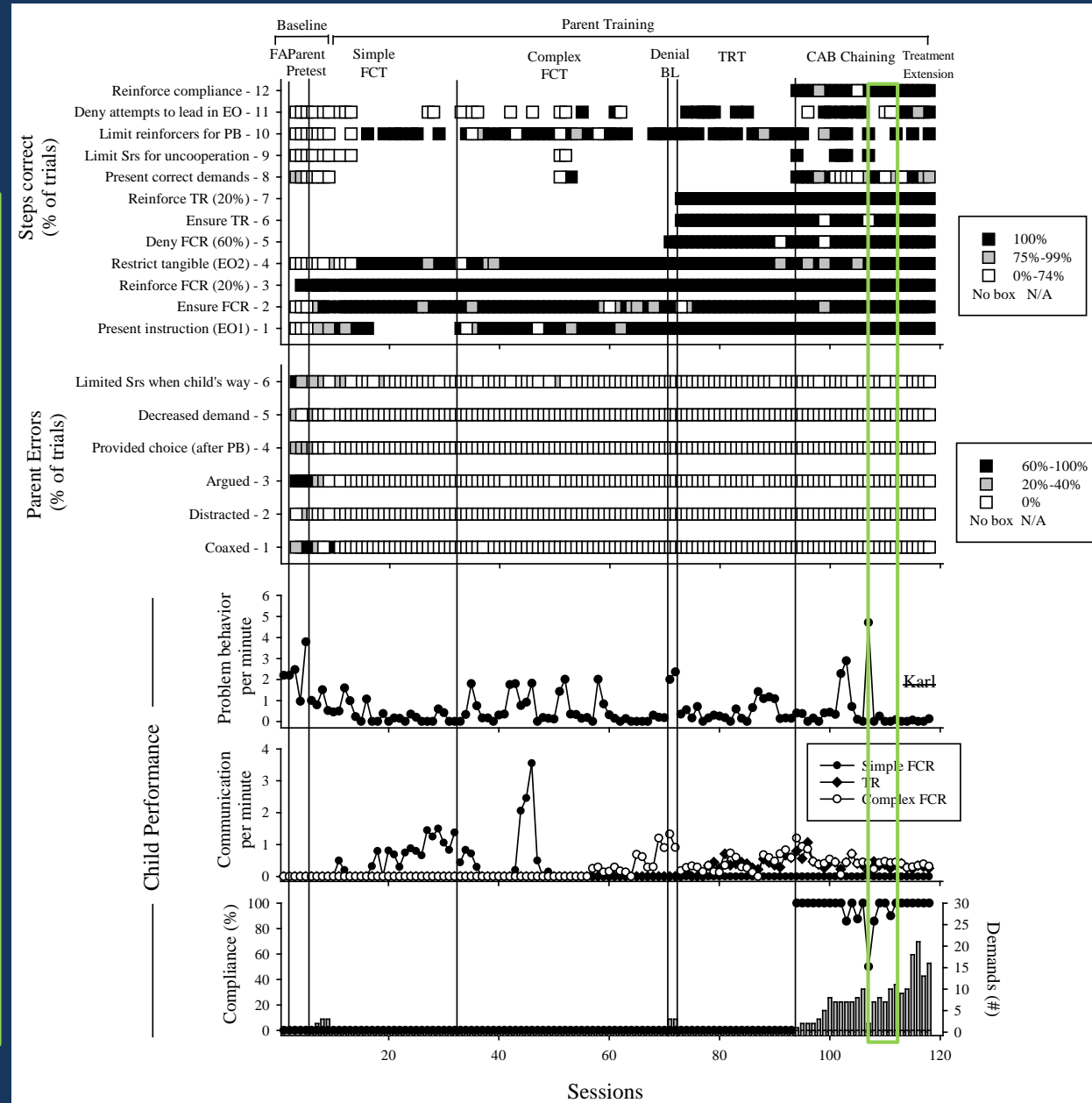
Parent Training – Karl

Age: 4 Diagnosis: None Language Level: Fully fluent speech
Referred for: Aggression, Property destruction, Screaming



Parent Training – Karl

Age: 4 Diagnosis: None Language Level: Fully fluent speech
Referred for: Aggression, Property destruction, Screaming



Skill-Based Treatment of Stereotypy

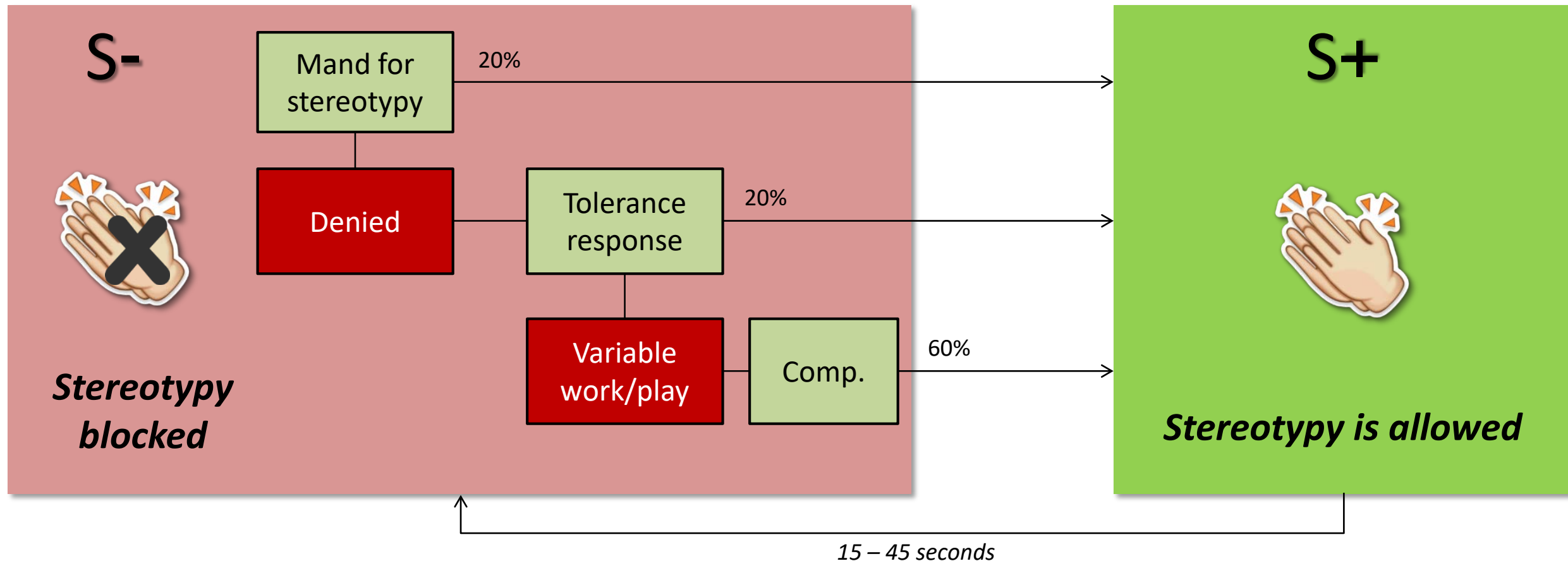
Permission based model in which communication, toleration, and contextually appropriate behaviors are strengthened

(adapted from Hanley, Jin, Vanselow, & Hanratty, *JABA*, 2014)

- 1. Teach child to request access to stereotypy**
(via blocking and contingent access to stereotypy)
- 2. Teach child to tolerate denials of mands for stereotypy** (via blocking and contingent, intermittent, and unpredictable access to stereotypy)
- 3. Teach child to engage in contextually relevant behavior**
(via prompting, blocking and contingent, intermittent, and unpredictable access to stereotypy)

Skill-Based Treatment of Stereotypy (in prep.)

- Combination of Hanley et al. (2014) and Slaton & Hanley (2016)



Participants

Name	Age	Diagnosis	Communication	Work tasks
Grant	7	Autism	1-2 word phrases	Numbers, letters, sight words, pictures, matching
Milo	12	Autism	No phrases	Match and identify objects, pictures, numbers, letters; short ADL tasks
Marco	21	Autism	1-3 word phrases	Leisure and time management on iPad

Participants: stereotypy topographies

Grant

- Hand flapping
- Finger wiggling
- Object flapping
- Clapping
- Holding objects to eyes and rotating

Milo

- Hand flapping
- Tapping on teeth
- Rubbing or poking face
- Finger play
- Shaking objects
- Tapping work materials

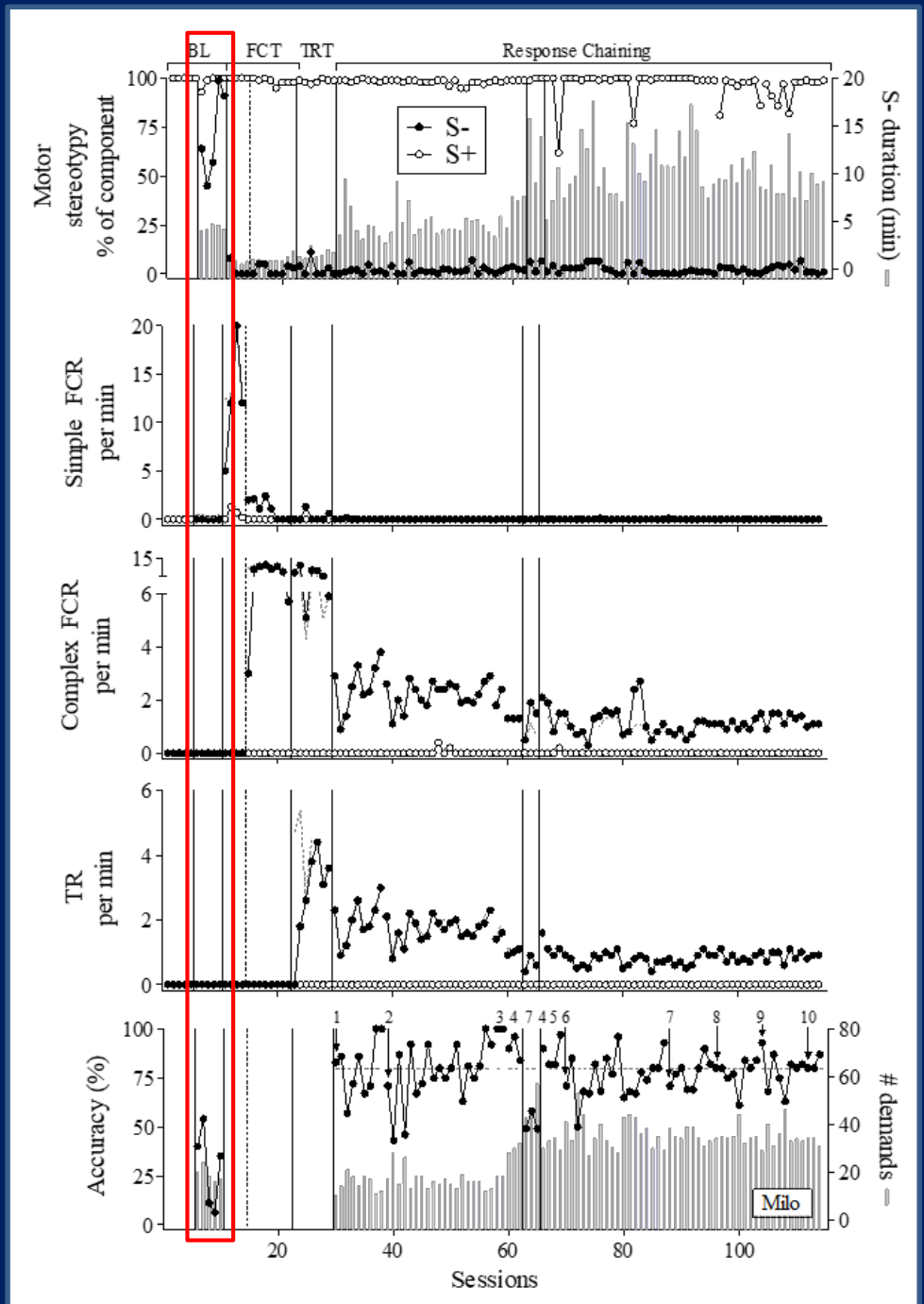
Marco

- Pacing or galloping
- Jumping
- Tapping body, furniture
- Hair twirling
- Knuckle cracking

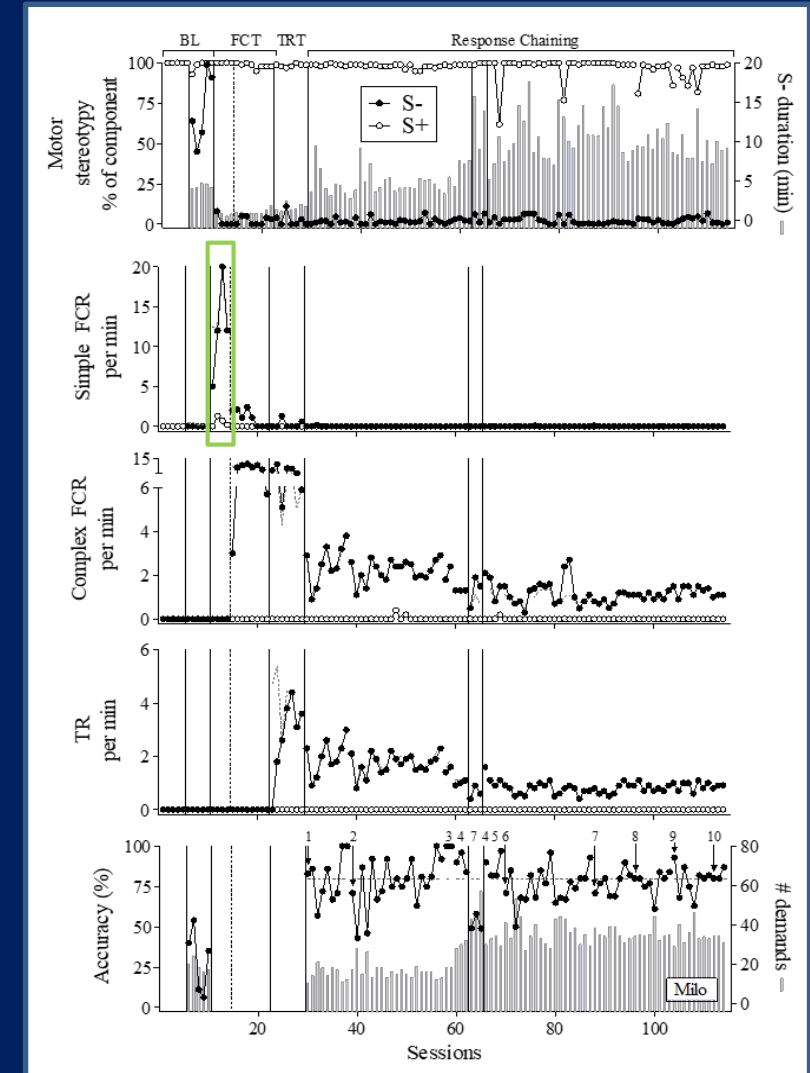
Treating Stereotypy - Milo

- Age: 12
- Diagnosis: Autism
- Language Level: none
- Referred for: Disruptive Stereotypy

Instructional Baseline

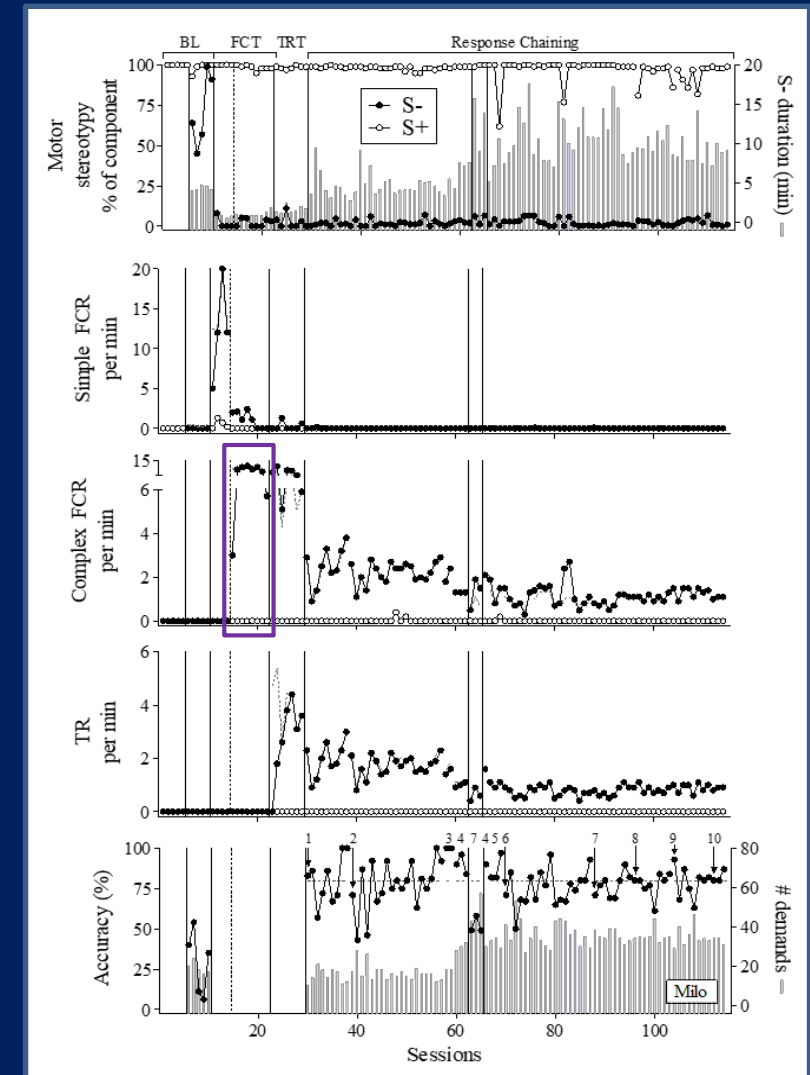


Treating Stereotypy - Milo



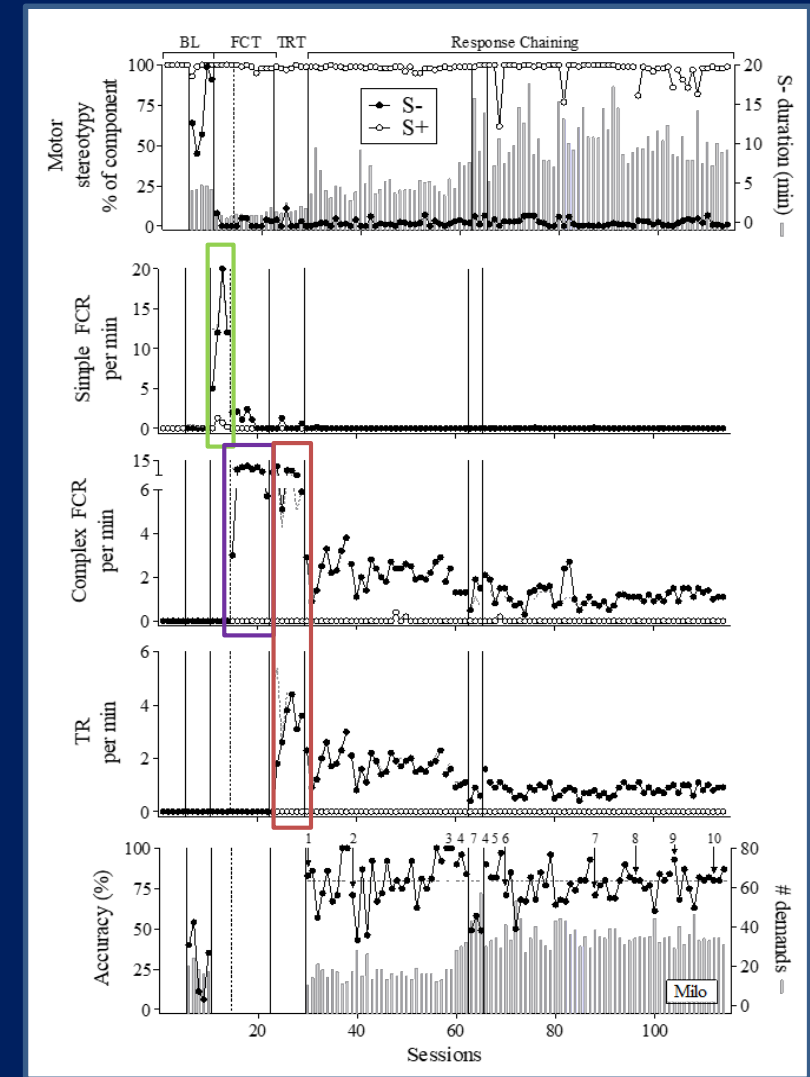
Simple FCT

Treating Stereotypy - Milo

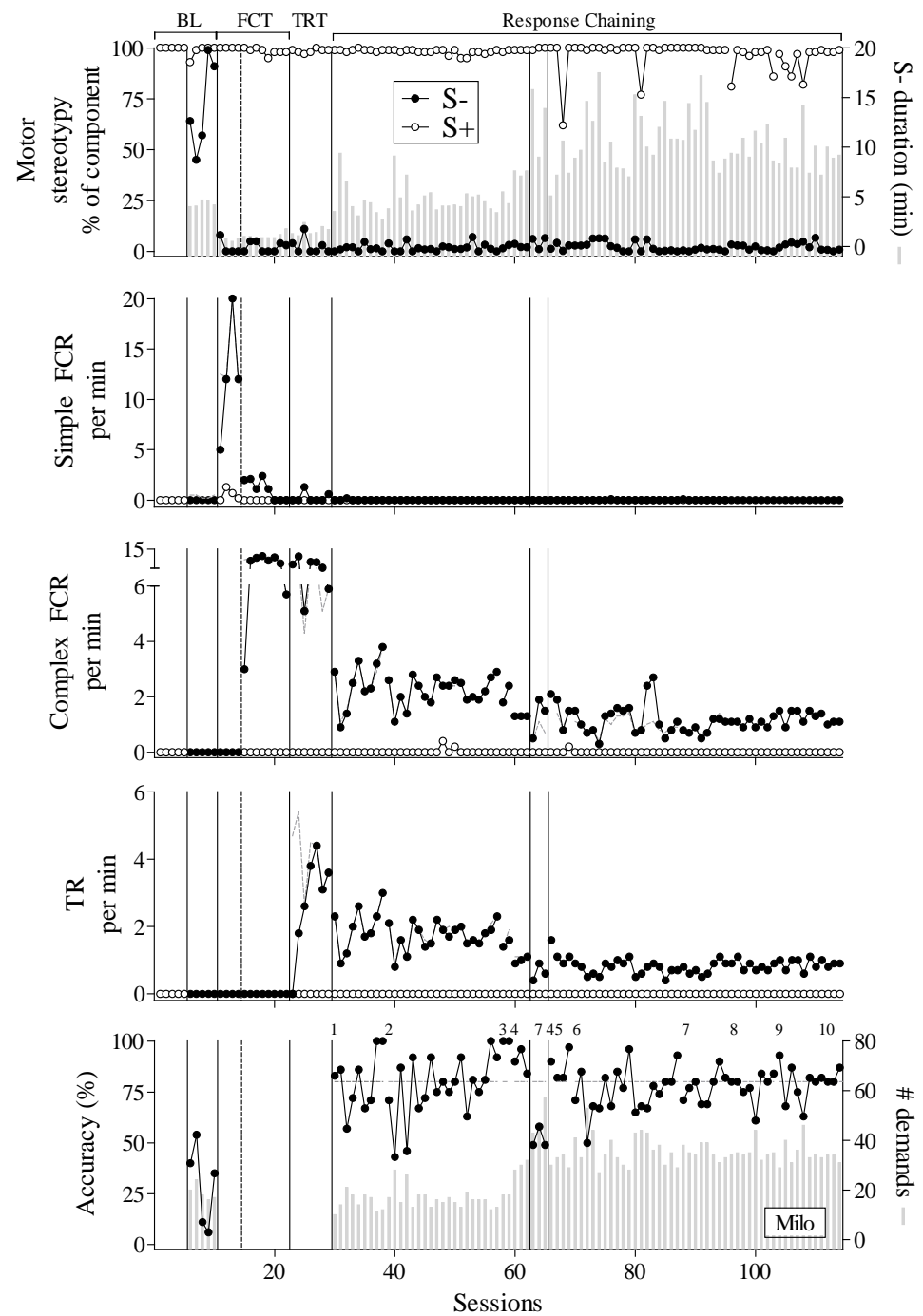


Complex FCT

Treating Stereotypy - Milo



Tolerance Response
Training

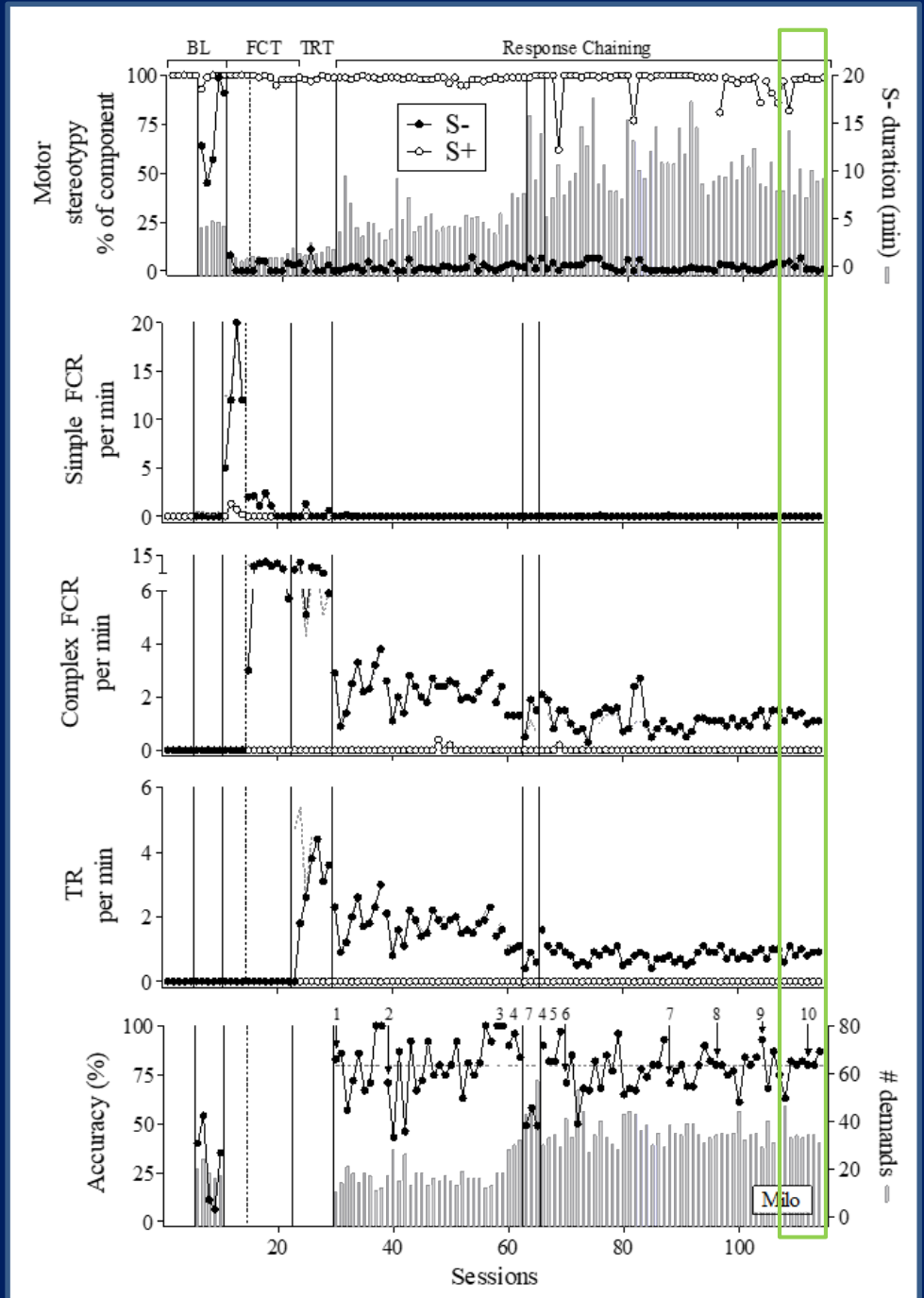


Level	Task	Demand range	Total demands	Field size
1	Match pictures	1 - 3	12	3
2	+Letters, numbers	1 - 3	12	3
3	(Same)	1 - 6	18	3
4	(Same)	1 - 10	27	3
5	(Same)	1 - 10	27	4
6	(Same)	1 - 10	27	5
7	(Same)	1 - 10	27	6
8	+Sort objects	1 - 10	27	6
9	+ADLs	1 - 10	27	6
10	+Identify pictures	1 - 10	27	6

Treating Stereotypy - Milo

- Age: 12
- Diagnosis: Autism
- Language Level: none
- Referred for: Disruptive Stereotypy

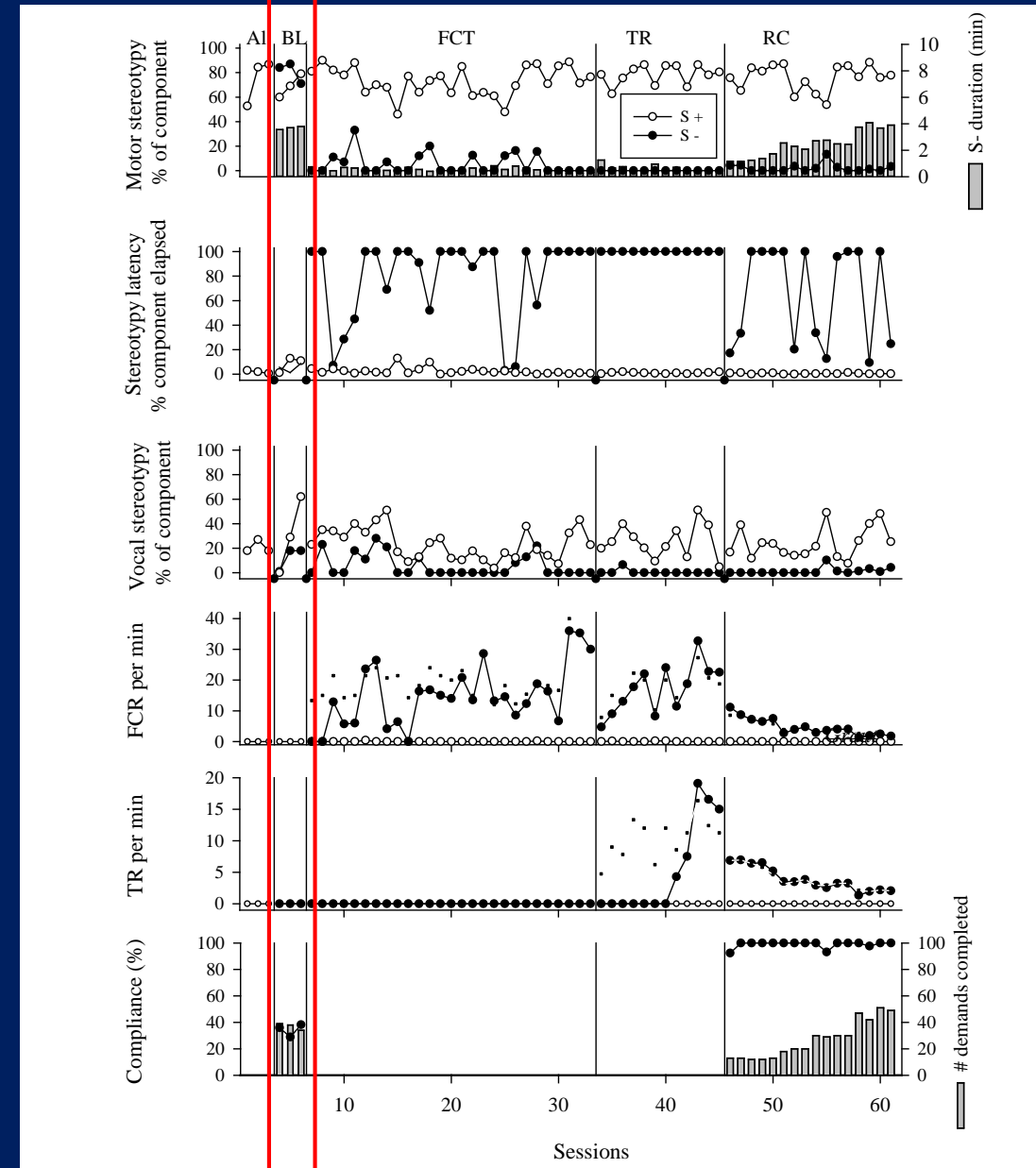
CAB Chaining – Accuracy included in contingency



Treating Stereotypy - Grant

- Age: 7
- Diagnosis: Autism
- Language Level: Speaks in 1 or 2 word utterances
- Referred for: Disruptive Stereotypy

Instructional Baseline



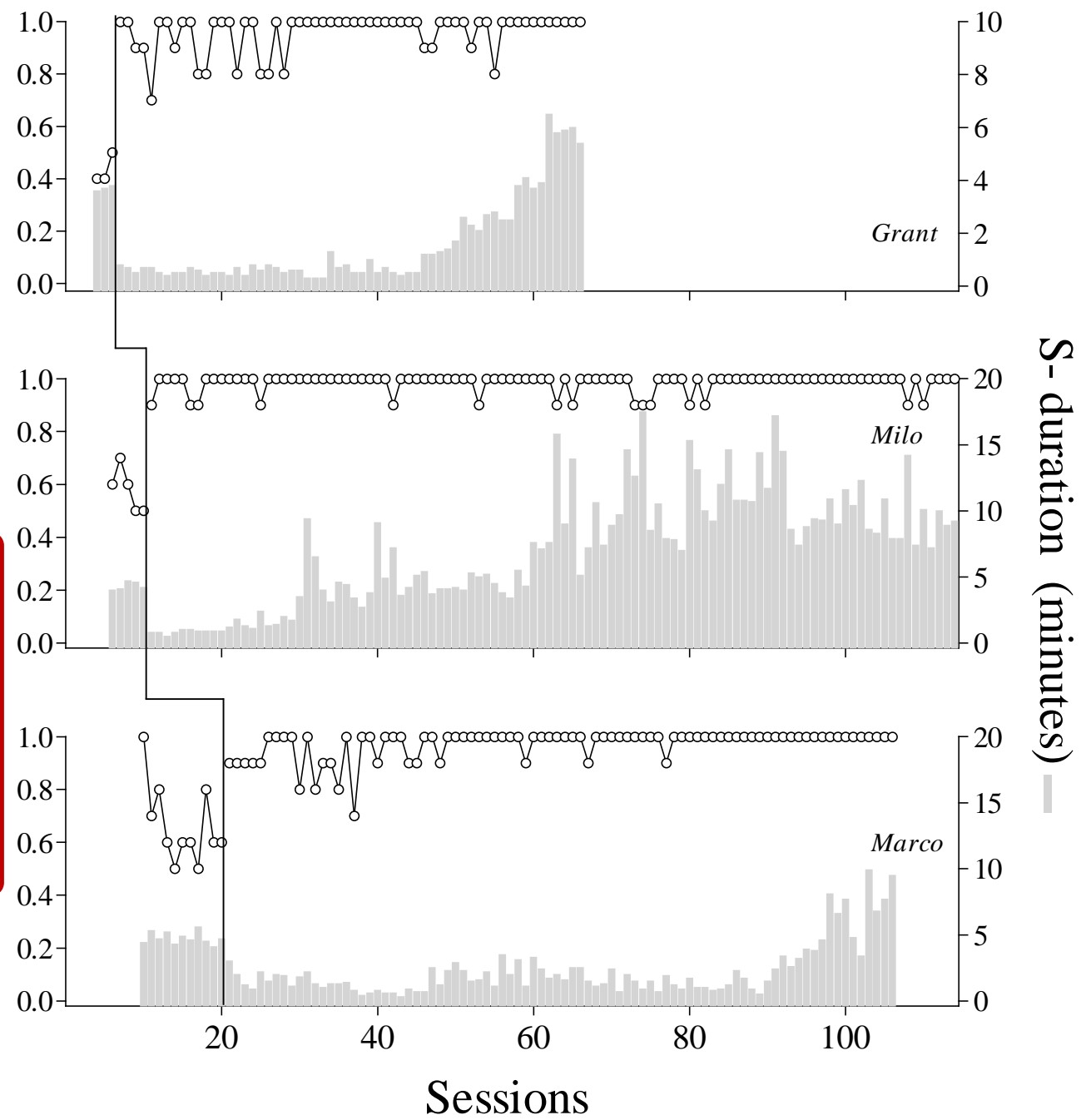
Treating Stereotypy - Grant

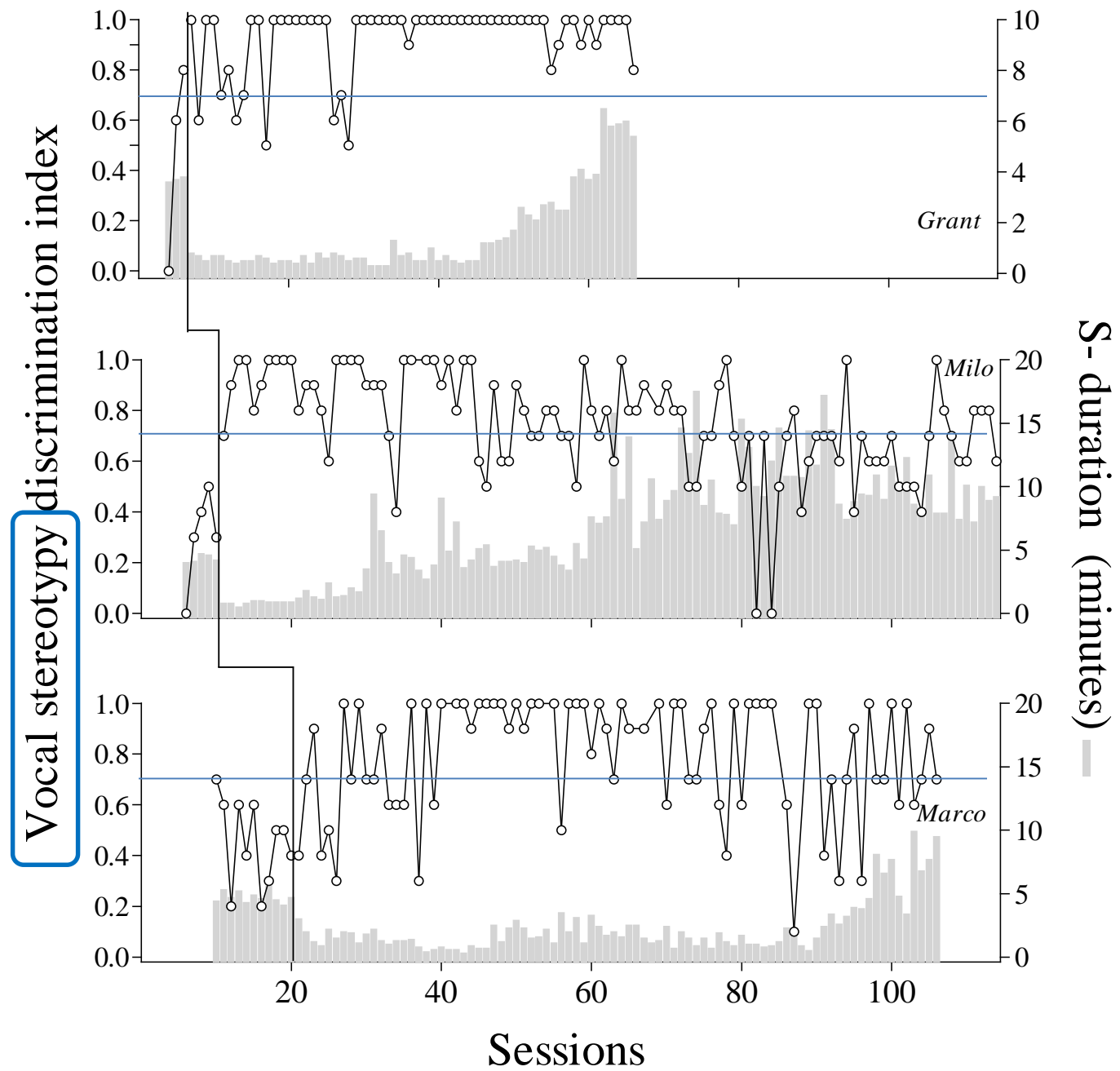
- Age: 7 Diagnosis: Autism Referred for: Disruptive Stereotypy
- Language Level: Speaks in 1 or 2 word utterances

Treatment Extension
(not on previous graph)



Motor stereotypy discrimination index





Social Validity

1 = highly disagree

7 = highly agree

Question	Grant	Milo	Marco
The treatment that involved teaching a request for stereotypy, teaching an appropriate response to the denial of that request, and teaching the individual to complete an increasing number of demands before earning access to stereotypy was acceptable.	7	7	7
The amount of behavior change (i.e., the effects of treatment) was acceptable or sufficient.	6	7	6
The overall goals of this treatment were acceptable, appropriate, and important for the individual.	7	7	6
I would recommend this treatment package to other therapists or providers who are attempting to decrease stereotypy and increase appropriate engagement.	7	7	7

Treatment for stereotypy can (should?) be....

- **function-based**
- **comprehensive**
- **involve a strong, intermittent, and unpredictable contingency to inhibit stereotypy and do something else contextually appropriate in order to engage in stereotypy**

**Come up with at least one question
relevant to conducting
this skill-based treatment process**

For more information, go to:

www.practicalfunctionalassessment.com

**and look out for useful peer-reviewed
research from:**

**Jessel, Ingvarsson, Ghaemmaghami, Beaulieu,
Slaton, Ward, Warner, Rajaraman, Gover,
Ruppel, Whalen, Mouzakes, & Metras**