

An Evaluation Of A Waiting Period And DRL On Reducing Mand SIB As Precursors To Self-Injurious Behavior

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Introduction

Rationale:

Functional Analysis (FA), Functional Communication Training (FCT), assessment & treatment of precursor behavior, and schedule thinning are useful in the assessment and treatment of problem behavior. However, FCT often involves the acquisition of a novel response. (Carr & Durrand, 1985; Dracobly & Smith, 2012; Gerow et al. 2018; Greer et al. 2016 Hanley et al. 2001)

Limited research addressing:

- Treatment/schedule thinning if subjects already possess alternative response. (Chowdury & Benson, 2010; Kostina et al. 2001)
- DRL procedures as methods to thin schedules of reinforcement. (Hagopian & Jarmolowicz, 2011; Hanley et al. 2001; Muhanib et al. 2019)
- Treatment/schedule thinning to address precursor behaviors that occur in high-rate bursts. (Austin & Bevans, 2001; Octalvaro, 2019)

Purpose:

- To evaluate the effects of a waiting period and differential reinforcement of low rate (DRL) on eliminating SIB while reducing the frequency of mands that functioned as appropriate precursors to SIB.

Methods

Participant Demographics:

- Sasha: 31-year-old female with ASD & Moderate ID diagnosis
- Krista: 53-year-old female with Moderate ID diagnosis

Behavioral Definitions:

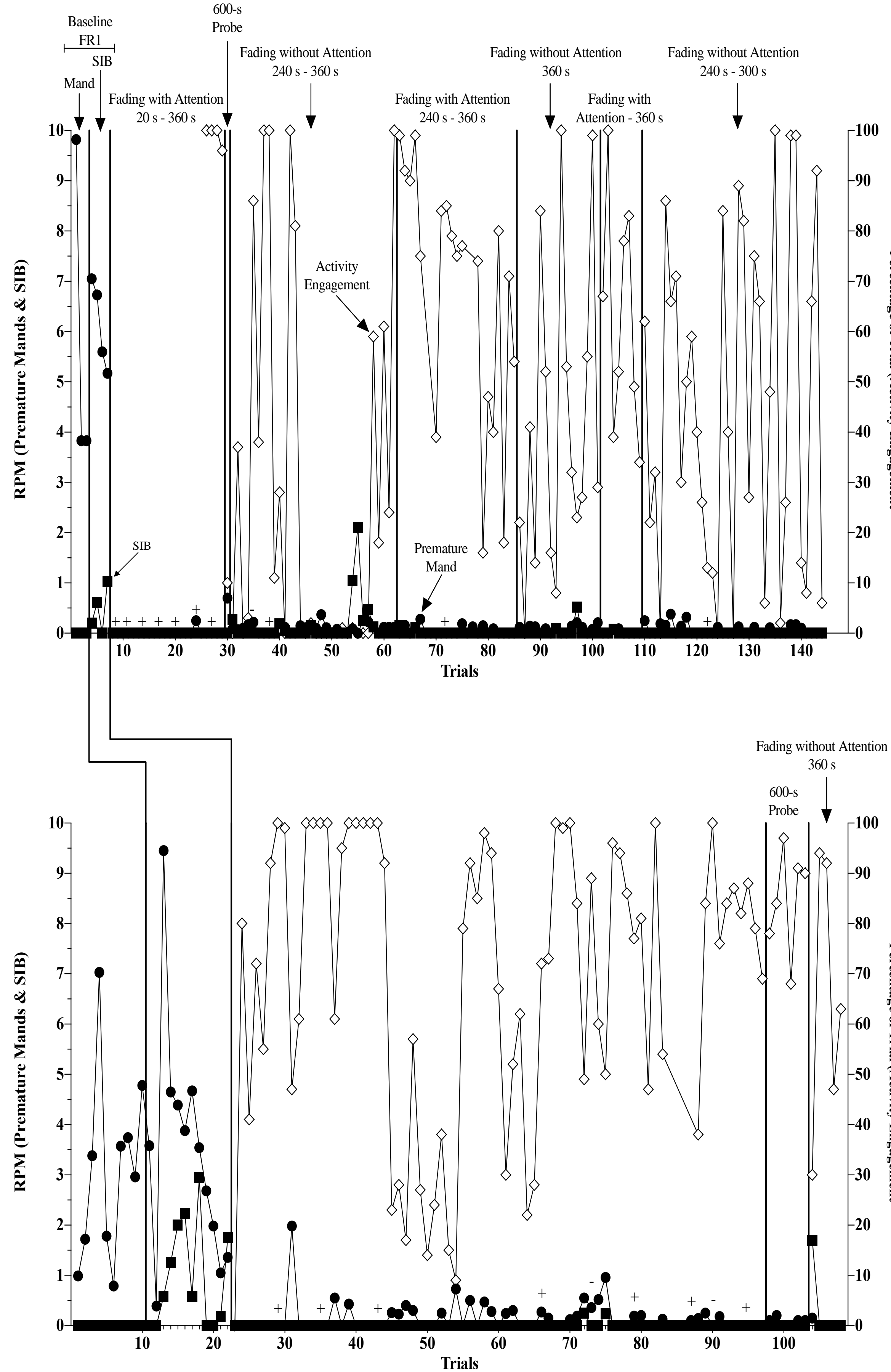
- Activity Engagement:** participants fingers/palms/hands contacting the leisure items.
- Premature Manding:** any appropriate verbal statement requesting access to the edible item (Sasha) emitting any verbal statement, in the present tense, requesting access to the edible item in (Krista)
- Self-Injurious Behavior:** pinching, biting, head banging, or contact between open palm/fist/elbow against own body (Sasha) hand biting and leg hitting (Krista)

Interobserver Agreement & Treatment Integrity:

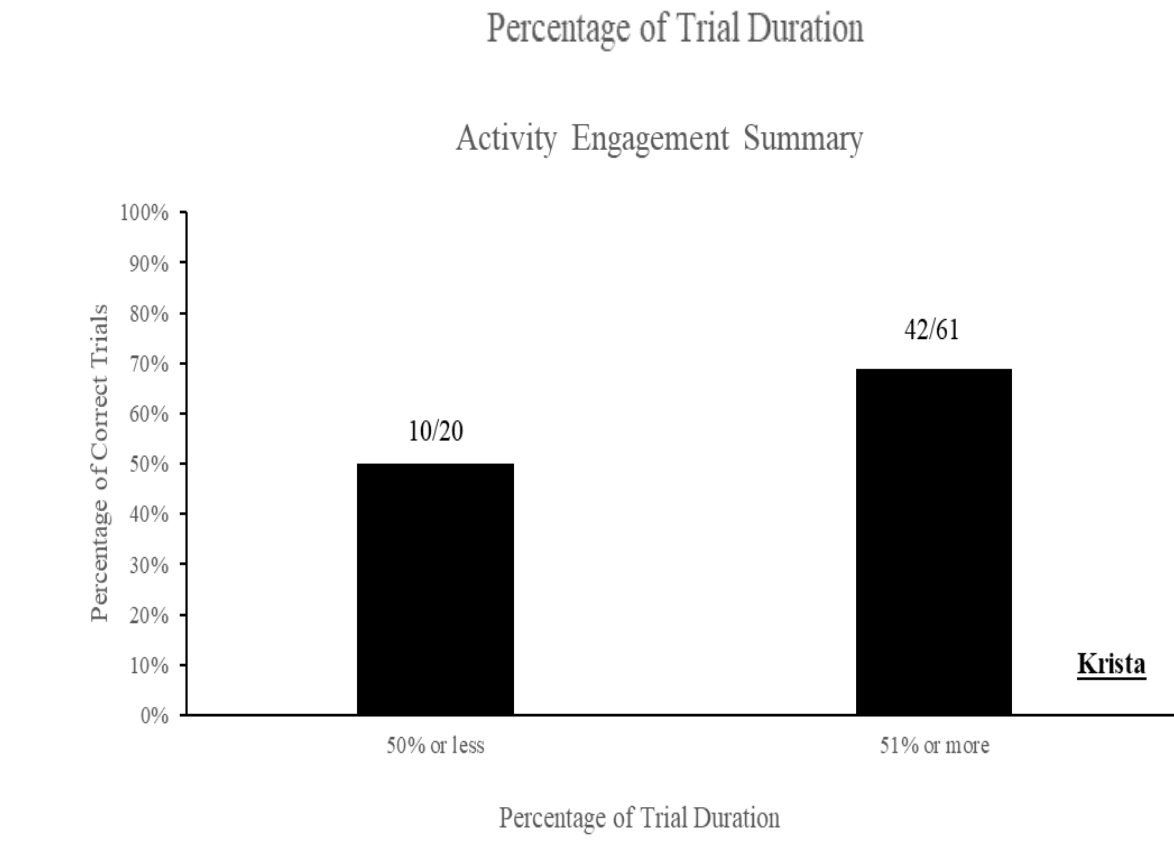
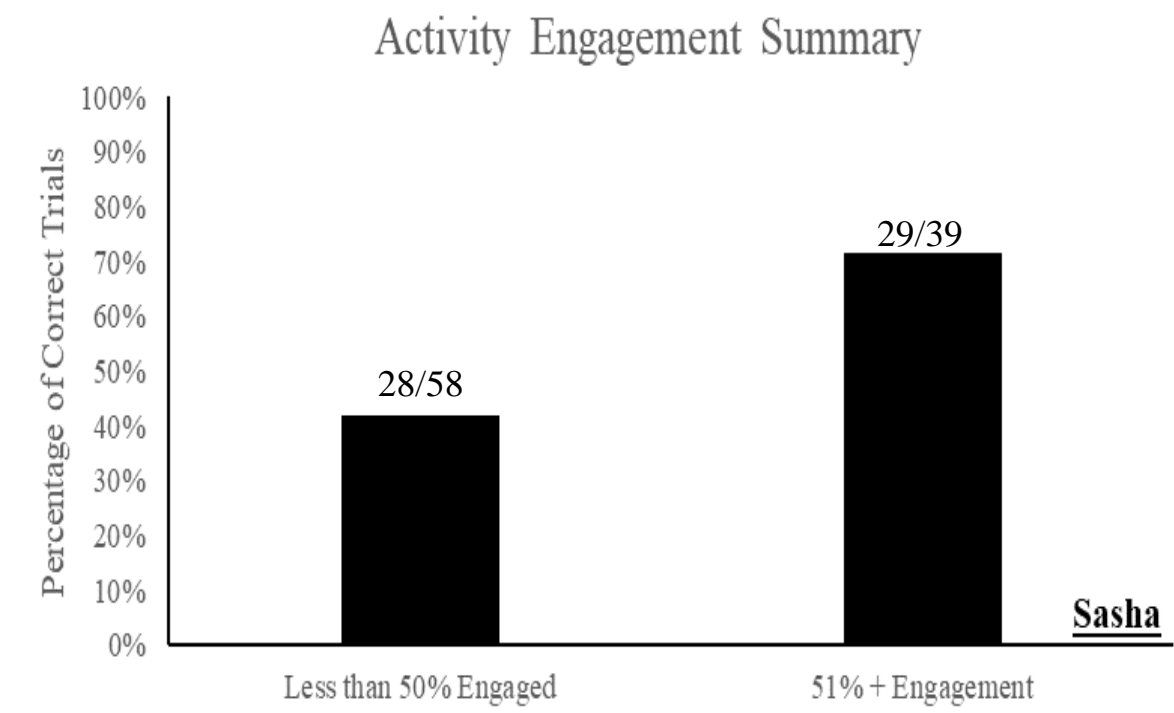
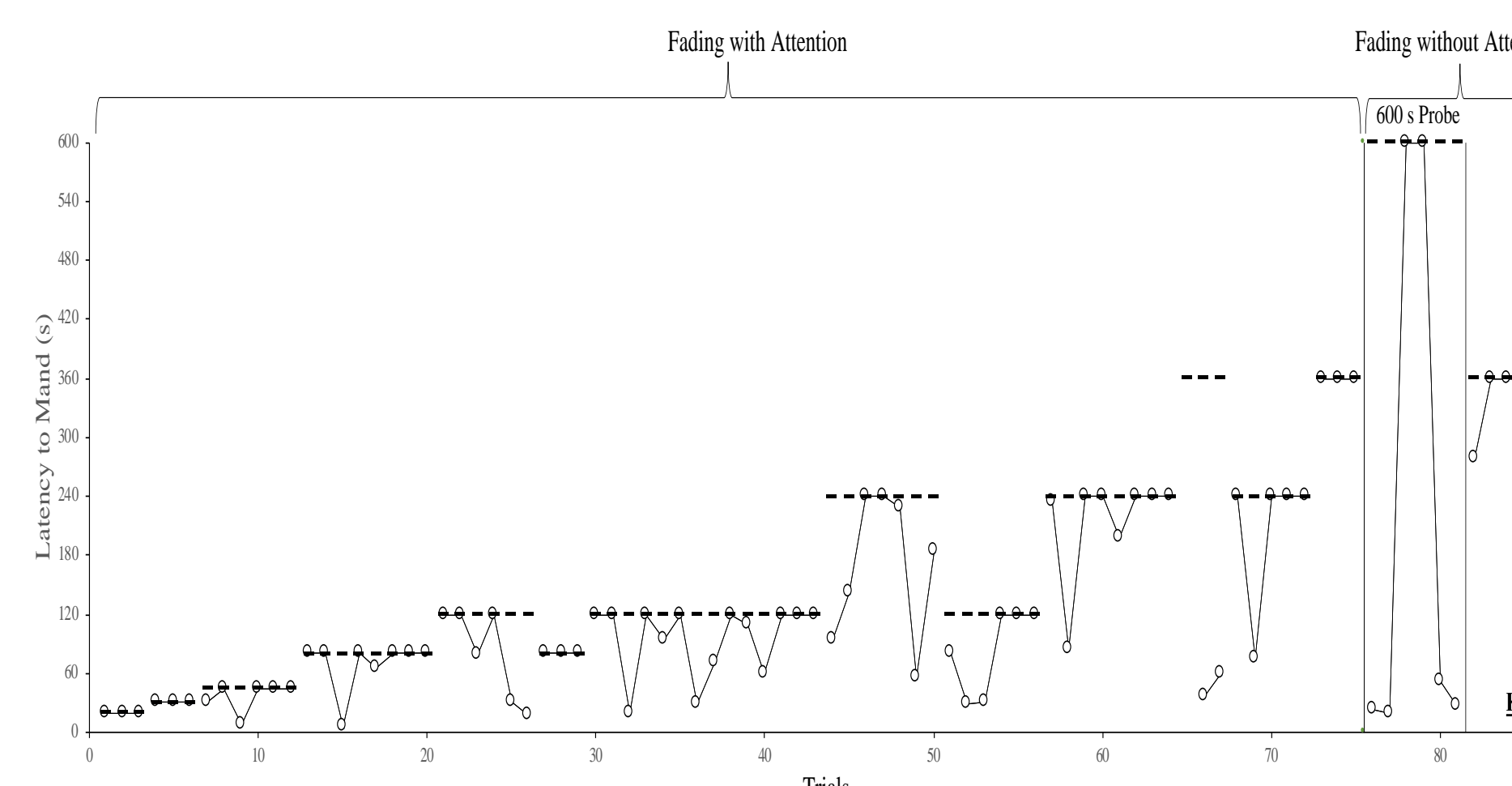
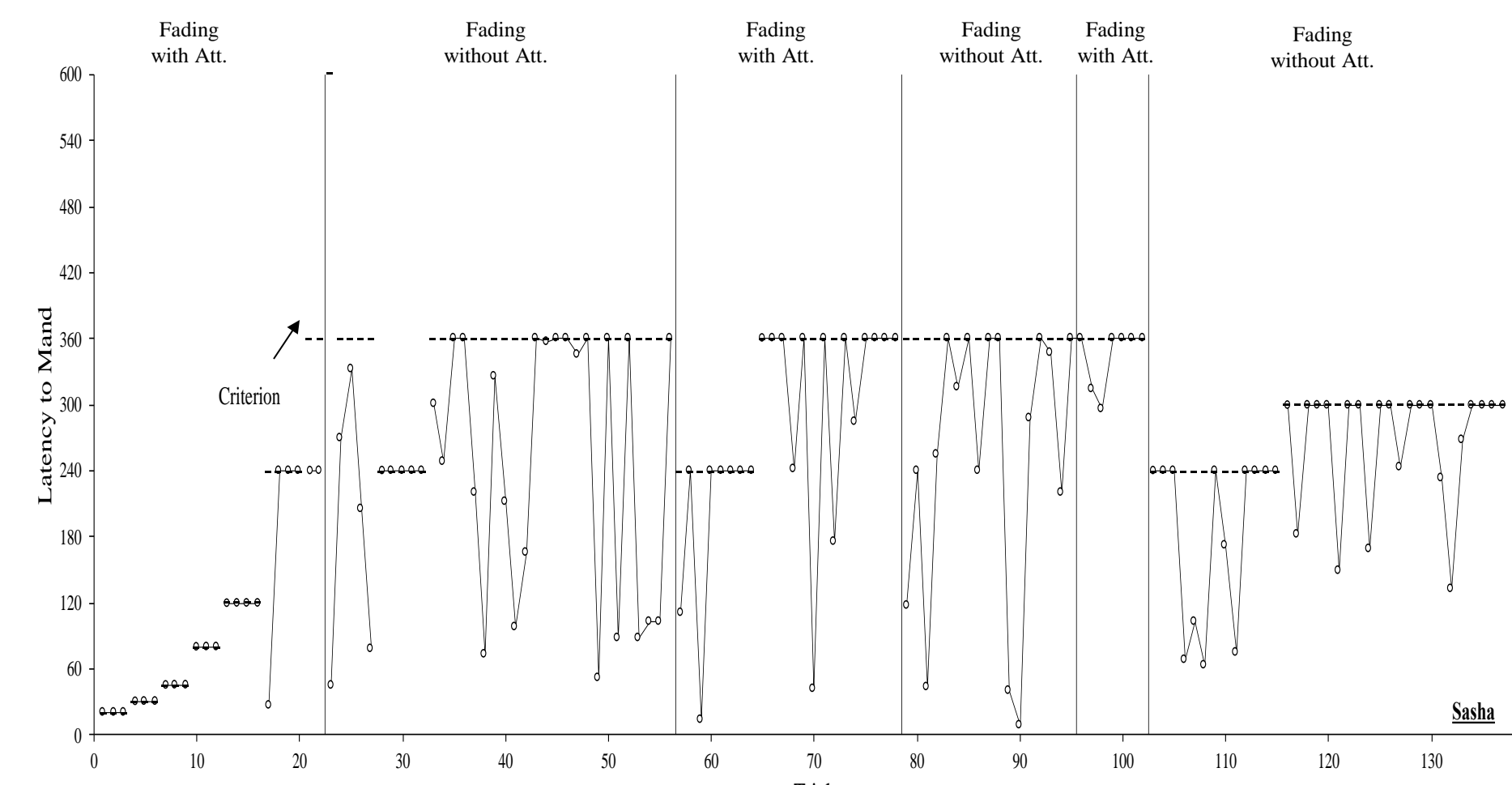
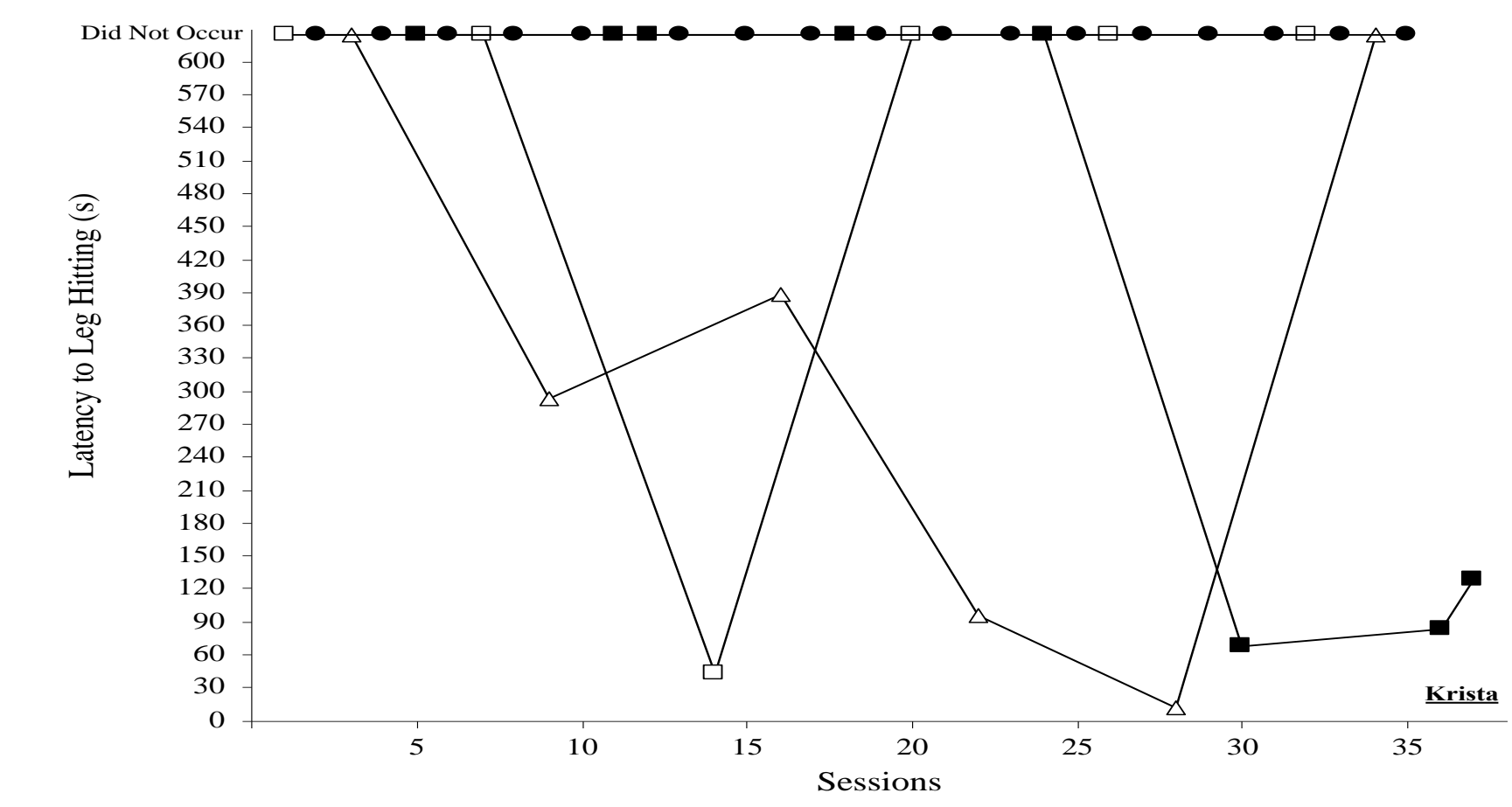
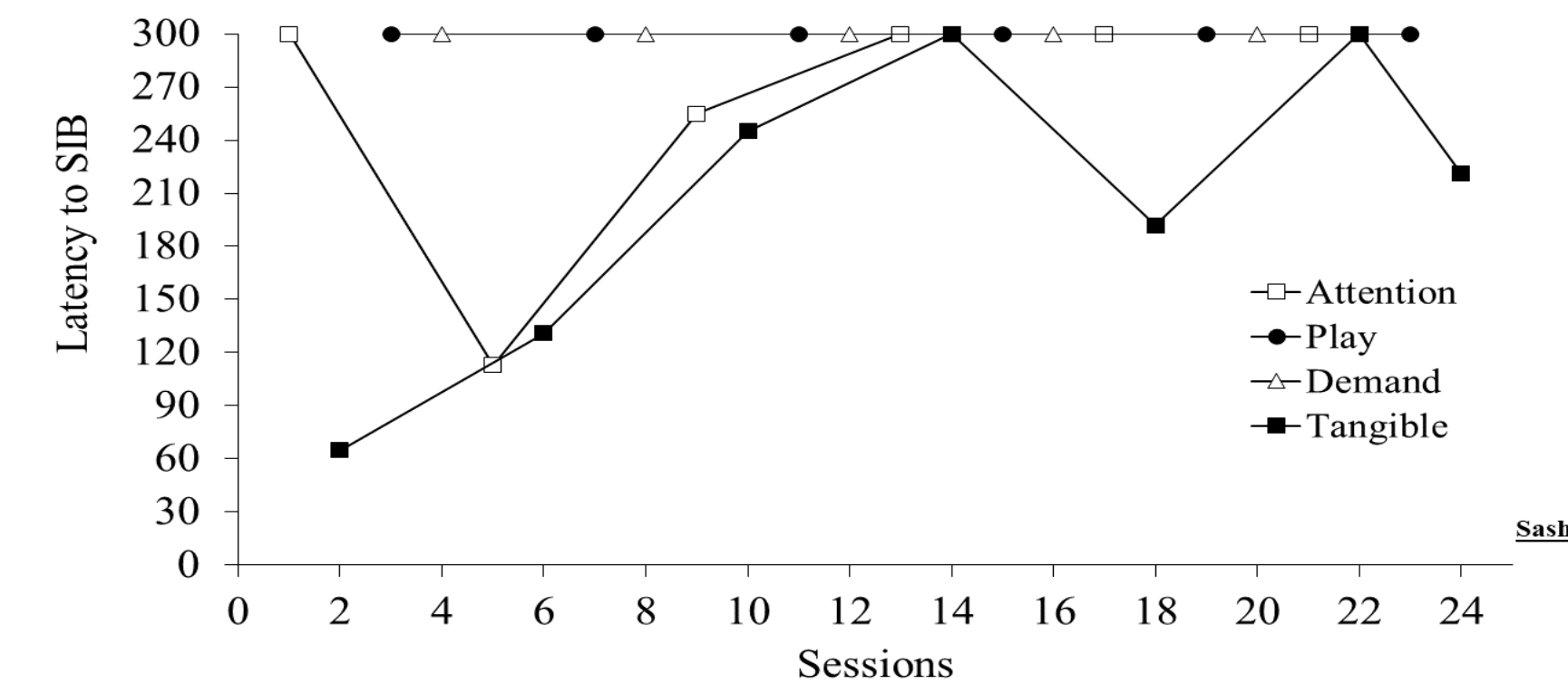
- Sasha IOA:** Overall-93%, Premature Mands-92%, SIB-98%, Activity Engagement-89%, Trial Duration-96%
- Sasha TI:** Overall-99%, Reset Timer-96%, Schedule of Attention-100%, Delivery of Edibles-100%
- Krista IOA:** Overall-95%, Premature Mands-97%, SIB-100%, Activity Engagement-88%, Trial Duration-96%
- Krista TI:** Overall-100%

Procedures:

Phase	Contingencies		Delay Durations
	Premature Mand	SIB	
Baseline: Contingency on Manding	Delivery of Edible	No Programmed Consequences	n/a
Baseline: Contingency on SIB	No Programmed Consequences	Delivery of Edible	n/a
Waiting Period + DRL with Attention	Timer Reset	No Programmed Consequences	20 s, 30 s, 45 s, 80 s, 240 s, 300 s, 360 s
Waiting Period + DRL without Attention Probe	No Programmed Consequences	No Programmed Consequences	600 s
Waiting Period + DRL with Attention	Timer Reset	No Programmed Consequences	240 s, 300 s, 360 s



Results



Discussion

Implications:

- Utility of waiting period + DRL procedures to reduce high rate verbal behavior that functions as a precursor to SIB
- Further supports notion of direct assessment of precursors.
- Further supports severe behavior can be treated by intervention targeting precursor behavior
- Demonstrates that behaviors already within an individual's repertoire can be used as an alternative response and may aid in treatment efficiency.
- Demonstrates the importance of mands contacting reinforcement regularly.

Limitations:

- Conducting a pairing timer with reinforcement prior to intervention could have provided better stimulus control and more efficient treatment.
- Natural environment of participants has limited amount of attention from caregivers.
- Fixed, increasing sequence of delay for DRL procedure may have slowed treatment.