Learning to Record Procedural Integrity and IOA through Video Training

Diana Perez [1], Candice Hansard [1], Ellie Kazemi [1], and Christina Saez [2]

[1]California State University, Northridge; [2] Los Angeles Mission College

Psychology Honors Program

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Introduction

- Consistency across data collectors is a difficult standard to meet when developing a study (Bass, 1987; Dempsey, Iwata, Fritz, & Rolider, 2012; Farkas & Tharp, 1980).
  - Improper training may lead to errors in data collection and low reliability between observers (Bass, 1987).
  - Researchers have found mastery can be attained in fewer session in the video training group than in the in-vivo training (Dempsey et al., 2012).

Purpose: To examine if participants develop the necessary skills to collect procedural integrity data of a preference assessment and calculate trial by trial Interobserver Agreement (IOA) from a video training package.

Method

Response Measurements		
	Data Collection	**Agreement Calculations**
Dependent Variable	Percentage of agreement with trained observer's procedural integrity data	Percentage of correct IOA calculations
Mastery Criteria	> 90% IOA on two videos without a booster sessions	> 90% accuracy across two consecutive data sheets
IOA	80% of the data was 100% across two independent raters	Two independent raters reviewed calculation accuracy with 100% agreement

Design: Non-current multiple baseline design across participants

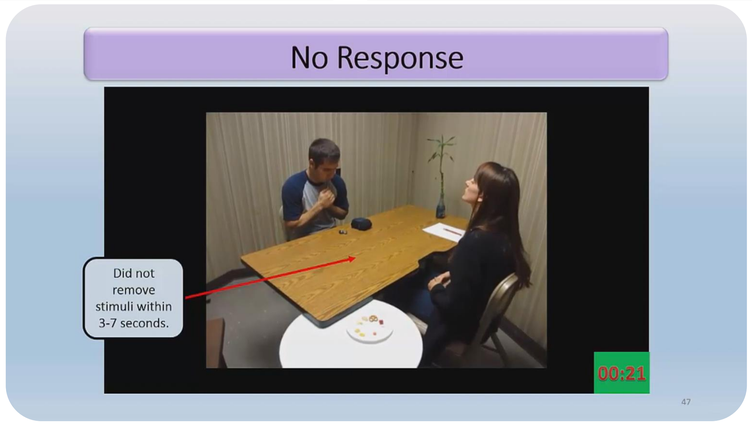
Participants: 4 undergraduate students (3 female, 1 male), No experience as behavior technicians, recruited from introductory course in behavior analysis and without formal training on preference assessments

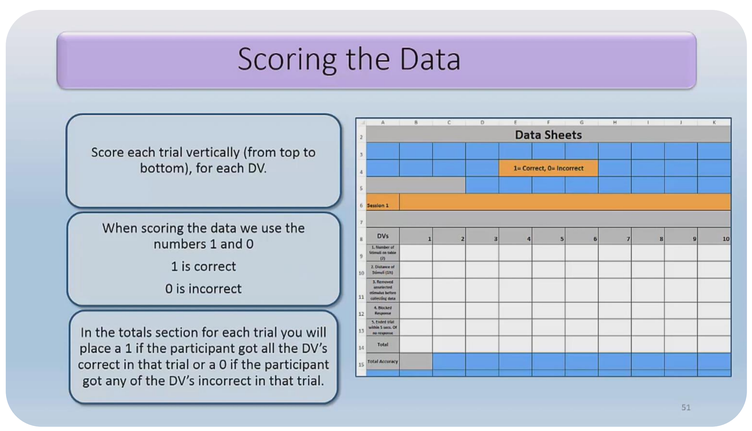
Settings: Observation rooms with a one-way mirror

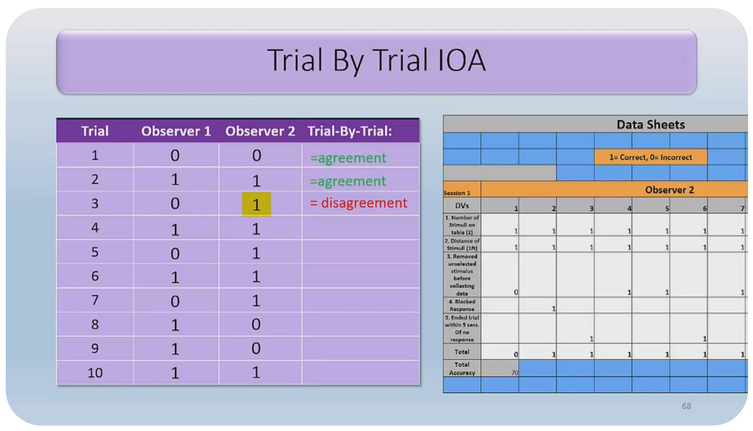
Materials: Video package, laptop, calculator, data collection instruction sheet, blank data sheet, list of target behaviors (5), scratch paper, and a pen.

Procedures

- Baseline (30 min - 1 hr 15 min)
  - Testing Videos: viewed video sessions of preference assessments with a simulated client (5 potential videos)
  - Agreement calculation sheets: calculated IOA and the total accuracy of procedural integrity score of two hypothetical data sets.
- Intervention: Video Training Package (38 min)
  - Watched recorded sessions, picture examples, modeling, and practice opportunities
  - IOA break down: a video of procedural instruction to calculate trial by trial IOA
- Post Intervention (30 min - 1 hr)
  - Exposed participant to the same steps as baseline condition
  - Booster Sessions: If participants scored < 90% Re-watch previously scored testing video or portions of the training package
  - Once participants met mastery criteria we evaluated their performance with a novel video.
- Social Validity Questionnaire (2 min)
  - On a scale of 1 - 5 (1 = strongly disagree, 5 = strongly agree)

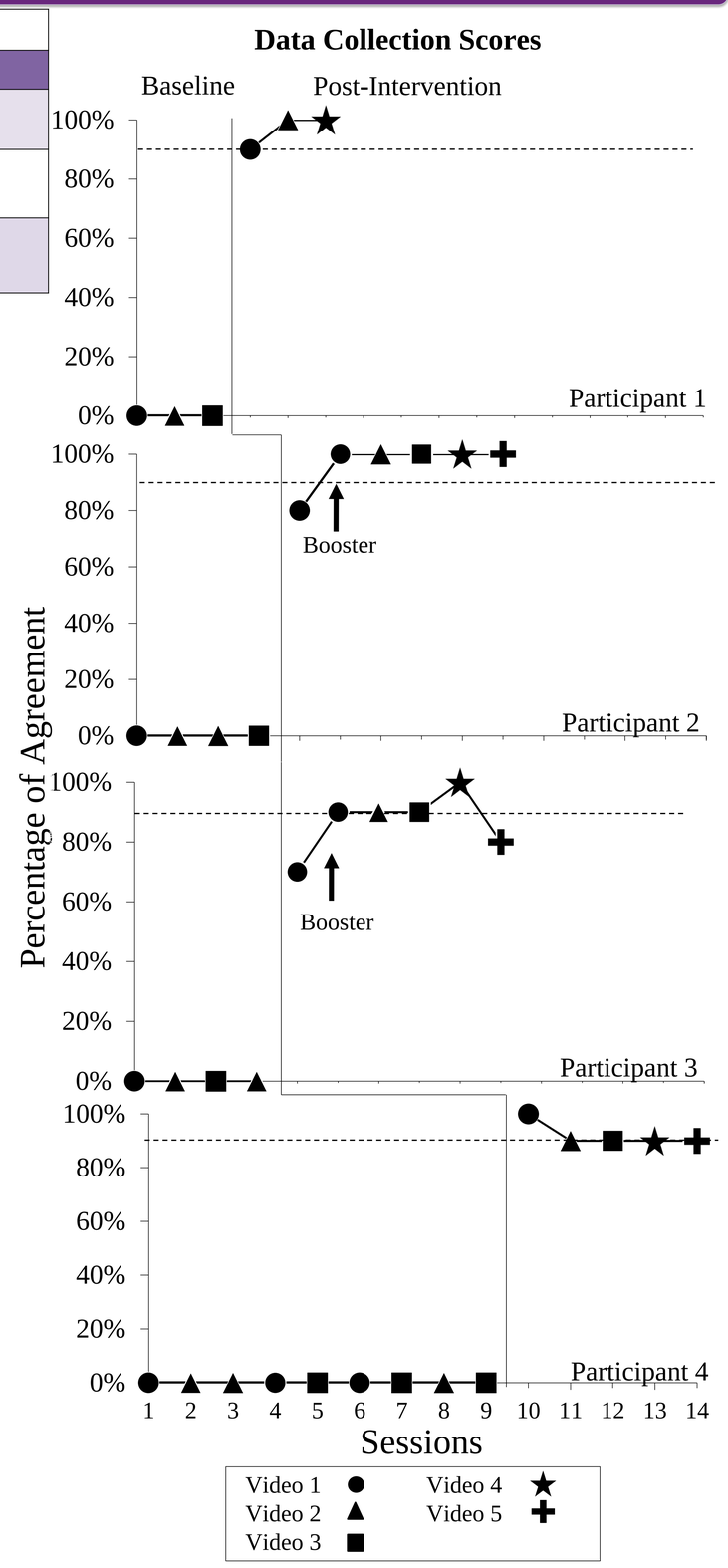






Results

Summary IOA Calculation Scores	
Agreement Calculations	
Attained mastery	3/4 Participants
Required Booster Sessions	2/4 Participants
Number of Sessions to Mastery	M = 3, SD = 1



Discussion

Summary findings

- With an average training time of 42 min (SD= 3.87 min), all participants reached mastery in 2-3 testing videos without direct intervention from the master trainer

Limitation

- Participants were watched through a one way mirror for the entire study

Implications & Future Research

- Train research assistant in less time and with little supervision
- Less error due to systematic training
- Conduct a maintenance probe to assess if skills were retained over time
- Conduct a generalization probe to measure ability to perform and record an in-vivo preference assessment (Field et al., 2015)
- Splitting up the IOA and data collection training to decrease the latency of skill application

Social Validity Questionnaire	
Statement	**Participant Ratings**
Recommend this video training package…to learn how to collect direct observation data.	M = 4.75, SD = .5
Training package…can be used when a trainer is not available to teach inexperience individuals.	M = 4.5, SD = 1
I feel confident that I can correctly collect data on a preference assessment.	M =4.5, SD = .58
I feel confident that I can accurately calculate IOA.	M = 4.5, SD = .58

References

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