First learn to sit, then sit to learn
Teaching independent transitions to young children with Autism

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Introduction

Background:

- **To use social reinforcers in instruction, children in IBI must independently transition from 'play' areas to 'work' areas multiple times in an instructional session.**
- Previous studies
  - Schmit et. al., (2000) 1 child in school setting, Cueing intervention
  - Wilder et. al., (2005) 2 children in home setting,DRO intervention
  - Reed Schindler et al., (2005)1 child in school: FCT intervention

Purpose:

- Test effectiveness of errorless teaching and slow increases in response requirements to teach calm transitions in the context of EIBI programming

Setting: Client Homes

Experimenters:

P1 and P2: Supervisors (8 years average duration employment).
P3: Clinical staff (2 years average duration of employment).

Participants:

N=3 clients (P1,P2,P3) with consent provided by parent (see table 1 below for participant information).

Table 1.

Participant	Gender	Age at Start of Study (years, months)	Diagnosis
1	M	2,3	Autism
2	M	2, 3	Autism
3	F	4, 2	Autism

Methods

Experimental Design: Multiple Baseline Changing Criterion (Distributed Criterion Design (MacDougall, 2006)

1. **Baseline Probes (delivered in blocks of 5 trials)**.
   a. Child looking at staff
   b. SD=Verbal "Time to Work" + Gesture (pat chair with open hand)
   c. No prompting provided if incorrect or no response
2. **Baseline environmental arrangement**
   a. P1: Video playing within child's view
   b. P2:
      a. BL+Video= video playing when SD was given
      b. BL+No video= no video when SD was given
   c. P3: Video or other toys always available
3. **Instructional phases/Criterion changes SD delivered:**
   - **Criterion change 1:** child 0-3 feet from work chair
   - **Criterion change 2**: child 3-6 feet from work chair.
   - **Criterion change 3**: child anywhere in room (Figure 1)
   - **Final probes:** Same as baseline.

Figure 1

Intervention methods:

- Typical of IBI methods, errorless learning (prompts delivered and faded to ensure correct responding), clear and consistent SD's when skills are in acquisition, high rates of reinforcement.
- Duration/intensity:
  - P1,P2 study lasted approx. 2 months/averaged 30 hrs per wk of total service, at least 20 trials per service day of transition intervention
  - P3, (study in progress) currently at approx. 6 months/averaged 33 hrs/wk of total service. At least 20 trials per service day of transition intervention.

Reliability: Assessed on 30% of sessions from video for P1 & P2.
- Calculated as A/A+D

Treatment Fidelity: Assessed on 30% of sessions from video for P1 & P2.
- Calculated as percentage of observed correct intervention steps/total observed steps

Results

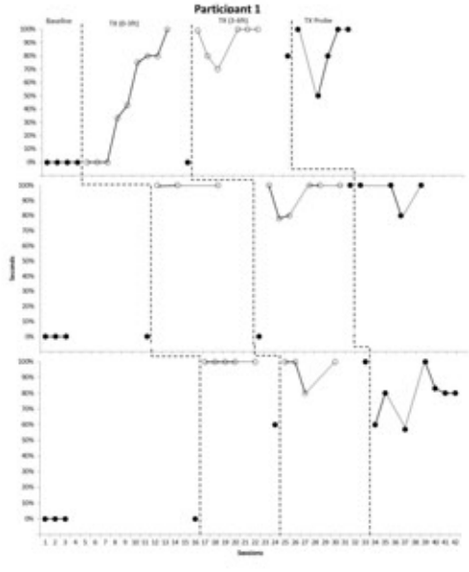
- P1 (Figure 2a)
  - Visual analysis: Acquisition of target skill demonstrated, experimental control shown between BL and Criterion 1-2 replicated for all staff. Generalization of skills shown before teaching of Criterion 3 for all staff.
- P2 (Figure 2b)
  - Visual analysis: Acquisition of target skill demonstrated with video on demonstrated between baseline and Crit. 3 for all staff.
  - Criterion changes showed experimental control for staff 2 despite increasing trend when video was on.
  - No experimental control for criterion changes shown for staff 1&3.
- P3 (Figure 3b- study in progress)
  - Visual analysis: To date, acquisition of target skill not shown to criterion 3, staff 1 shows trend towards experimental control and reaching criterion, staff 2 shows anomalous data prior to first criterion implementation but regains experimental control in crit. 2&3. Staff 3 shows no trend toward acquisition.
- **P1&2** Fidelity average=100%[range 100-100%] ,IOA average =99%[range=60-100%],

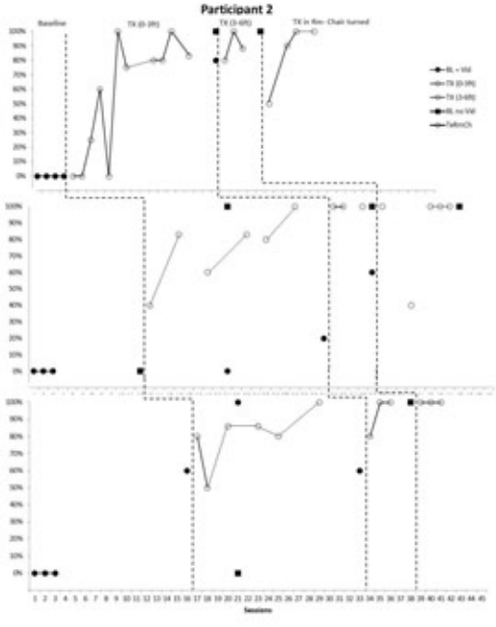
Discussion

- ***Participants show acquisition of target behavior***
- Generalization across staff is clinically positive but is a threat to experimental design
- Unclear effects of video on/off for P2, P3 data collection in progress
- Is problem behavior reduced by
- using these instructional methods compared to carrying the child (with or without cooperation) to chair?

Next Steps

- Incorporate additional participants
- Examine generalization/maintenance of acquired skills





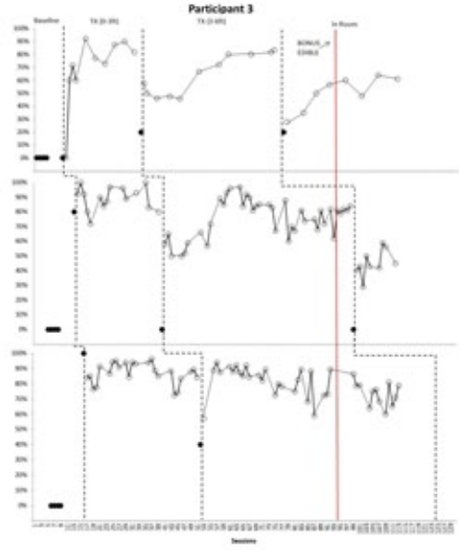


Figure 1. (top middle) participant and arrangement for criterion 3, Figure 2a (left) Participant 1, Figure 2b (middle) Participant 2 and Figure 2c (right) Participant 3

References

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