

ABSTRACT

A core characteristic of Autism Spectrum Disorders (ASD) is social impairments. As more students with ASD are being educated alongside their typically developing peers, providing these students opportunities to socialize with their typical peers is needed. One line of research has suggested that embedding social reinforcers into activities can help promote socialization for students with ASD. Within the context of a multiple baseline design across participants, we assessed whether embedding social reinforcers into lunchtime activities would increase socialization between students with ASD and typical peers. Preliminary data suggest that embedding social reinforcers into lunchtime activities increases the target student's levels of engagement with typical peers and increases the rate of initiations made by the target student to typical peers.

Method

Participants. Participants included three children between the ages of 5 and 10 diagnosed with ASD according to DSM-IV-TR criteria. Selection criterion included impairments in socialization with typically developing peers. In addition, participants required language potential necessary for acquiring appropriate socialization skill, but participants were identified as socially isolated in their school setting by their teacher or counselor.

Setting. The study took place at 3 elementary schools.

Reliability. Reliability was measured for each child in all conditions using either in-vivo or video data. Inter-rater reliability was calculated by dividing the total number of agreements over the total number of disagreements plus agreements yielding an average of 80%.

Design. A multiple baseline design across participants was employed.

Procedures. During baseline, students were not instructed to socialize with typically developing peers.

Intervention was implemented twice a week for Child 1 and Child 3, and once a week for Child 2 during lunch period.

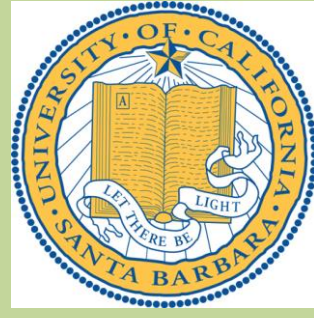
Specific motivational procedures of Pivotal Response Treatment, such as child choice, were embedded into social activities.

Generalization will be obtained for all participants in a manner similar to the baseline condition. Participants will not be given any instructions to socialize with peers.

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Embedding Social Reinforcers into Lunchtime Activities in Children with Autism Spectrum Disorders



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Dependent Measures

Social Initiations: Number of social communicative behaviors directed to a typical peer by the students with ASD. These behaviors are non-prompted requests, questions and/or comments independent of the previous topic.

Social engagement: the amount of time the child with ASD participated in the activity, either by facing peers, making eye contact, gesturing (e.g., pointing), responding to questions, asking questions, making comments, smiling, nodding, and/or sharing of activities or materials with peers during the interval.

Results

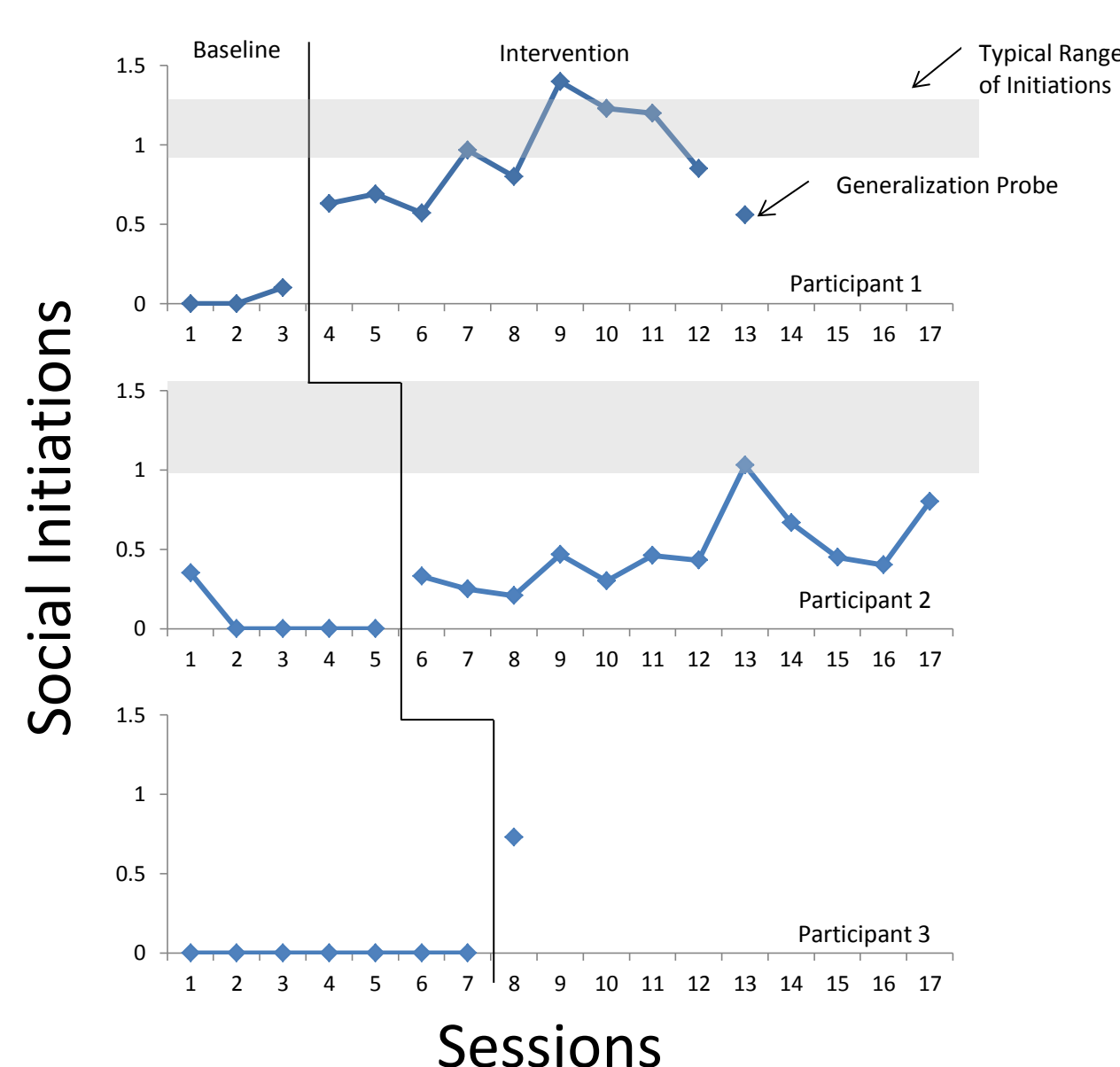
During baseline, all participants exhibited little to no engagement with peers during social periods. Additionally, all participants made little to no social initiations toward peers in these conditions.

With intervention, all participants increased in their level of engagement and rate of initiations made toward typically developing peers.

Social validation measures suggest that both students with ASD and typically developing peers enjoyed participating in the social activities.

Generalization will be obtained for all participants.

Rate of Initiations



Participating in the lunchtime activity makes me feel:

I made new friends after participating in the lunchtime games (yes/no)

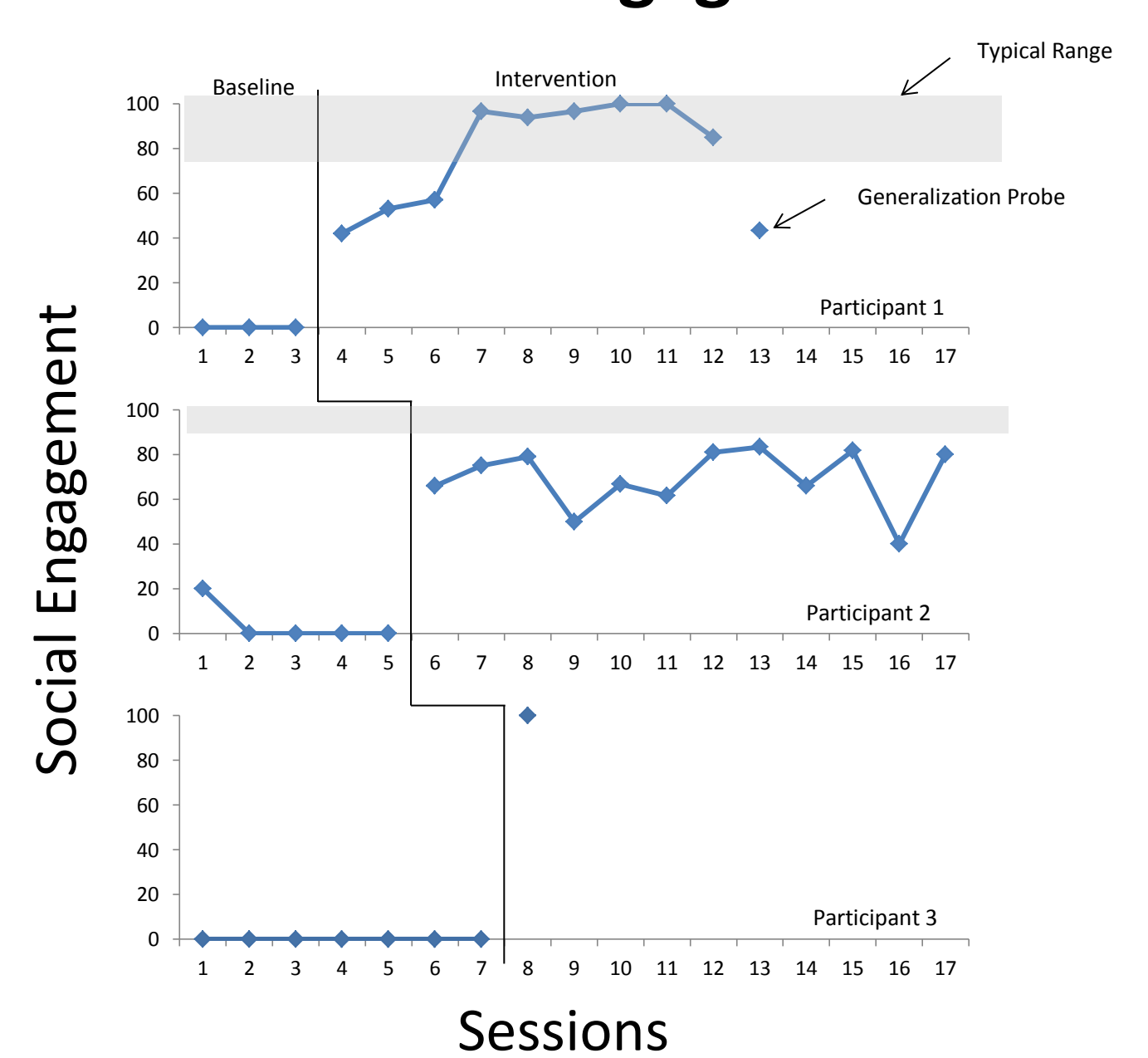
I enjoy participating in the lunchtime games (circle on a scale) 1= I HATE the game and 5 = I LOVE the game

Suggestions to make the game better?

Child 1	Happy	Yes	5	everyday
Modal Response from Peers	Good	Yes	5	No suggestion
Child 2	Happy	yes	4	Be more calm
Modal Response from Peers	Happy	Yes	5	No suggestion

Participants	Child Choice	Activity with Embedded Social Reinforcer
Child 1	Dancing with the stars, pop songs (e.g., Katy Perry, Lady Gaga), Shake it Up (Disney show), birthdays	Scavenger Hunt: Identify a peer that fits the description of the clue (e.g., find a friend that has a birthday in the month of May)
Child 2	Car parts, door parts, pop songs (Katy Perry, Lady Gaga)	Scavenger Egg Hunt: Find an egg and identify a friend that fits the description of the clue (e.g., find a friend that can name 5 parts of the car) Head Band: Place a card on your head and ask peers questions in order to find out the picture on your head
Child 3	Sign language	Hangman: Ask peers the letter first, then sign the letter that you guessed

Level of Engagement



Social Significance and Discussion

Children with ASD often report greater feelings of loneliness and a desire for more meaningful friendships (Locke, Ishijima, Kasari & London, 2010). Because children with ASD yearn for close friendship and are capable of socializing with typically developing peers (Koegel, R.L., Fredeen, Kim, Danial, Rubinstein, & Koegel, L.K., 2012; Koegel, L.K., Vernon, Koegel, R.L., Koegel, B.L. & Paullin, 2012; Koegel, R.L., Kim, Koegel, L.K., & Schwartzman, in press), it is imperative that we identify environmental conditions that may help foster socialization with typically developing peers. Future research directions include friendship development outcomes, and measures of social confidence post intervention.

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