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Recommended Citation

Order, Derek; Granieri, Jessica; and Gillis-Mattson, Jennifer, "Effects of PECS and Staff Instruction on Social Requests in a Naturalistic Setting" (2023). *Research Days Posters 2023*. 67.

https://orb.binghamton.edu/research_days_posters_2023/67

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Effects of PECS and Staff Instruction on Social Requests in a Naturalistic Setting

Derek Order; Jessica Granieri; Jennifer Gillis Mattson, PhD

Introduction

- 40% of children with autism are non-verbal and use Augmentative Alternative Communication (AAC) such as picture exchange communication system (PECS)
- PECS enables communication through exchanging pictures with a communication partner to receive desired items, activities, or complete social request (Dogoe et al., 2010)
- PECS interventions are typically taught in a classroom setting, introducing PECS intervention to a naturalistic setting has been shown to encourage symbolic and parallel play, as well as peer interactions (Pindiprolu 2011)
- To date, there has been limited research on PECS in playground settings with children with a diagnosis of Autism Spectrum Disorder (ASD)

Aim & Hypothesis

- To examine the effectiveness of introducing PECS onto the playground (naturalistic setting), to increase communicating social requests (SR)
- It was hypothesized that introducing PECS into a naturalistic setting, such as the playground, will provide a means for children to communicate social requests, therefore increasing the frequency of SR

Method

- Participants consisted of 6 children diagnosed with ASD aged 3-5
- A multi-probe, multiple baselines across participants design, was used in this study
- **Dependent Variable: Communicating a social request**, defined as the child initiating a request to another individual (peer or adult) for the purpose of engaging, helping, or playing with or without specific playground equipment/toys/structure

Procedure

- **Baseline Phase:** Frequency of SR by each child on the playground was recorded
- **Visual Stimuli (VS) Phase:** PECS pictures and sentence strips were attached to all the communication boards on the playground
- **Staff Intervention (SI) Phase:** Staff were provided with instructions on how to support the students using the PECS boards on the SLC

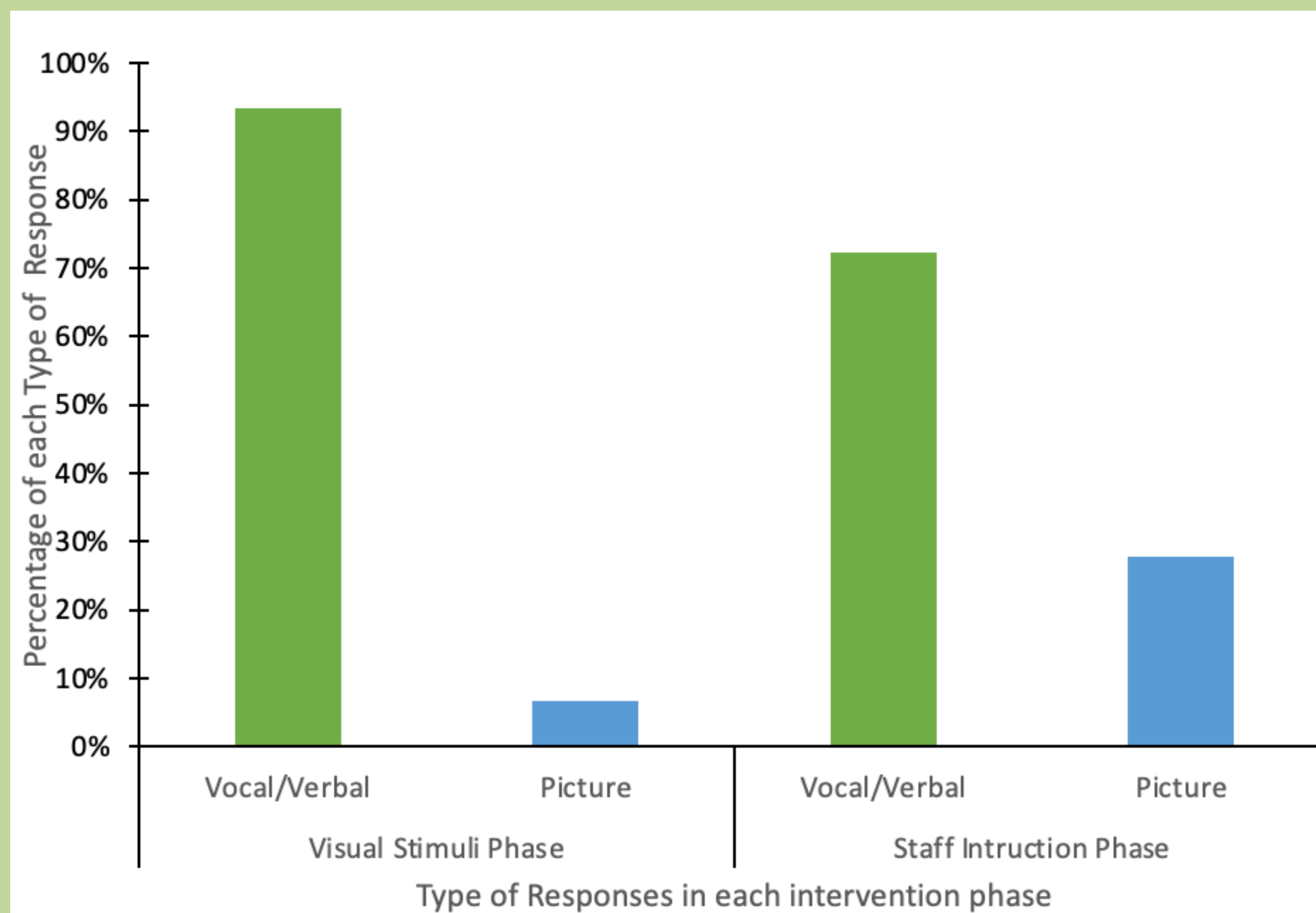


Figure 1. Types of Social Request Across Intervention Phases

SSAP Reflection

- During my SSAP experience, I received hands on experience dealing with the many different aspects involved in creating and implementing research. The SSAP has allowed me to work alongside an amazing mentor, Dr. Gillis-Mattson, who provided support every step of the way. I have already begun another independent research project with Dr. Gillis-Mattson that evaluates the impact of modeling, rehearsal and feedback on AAC staff training

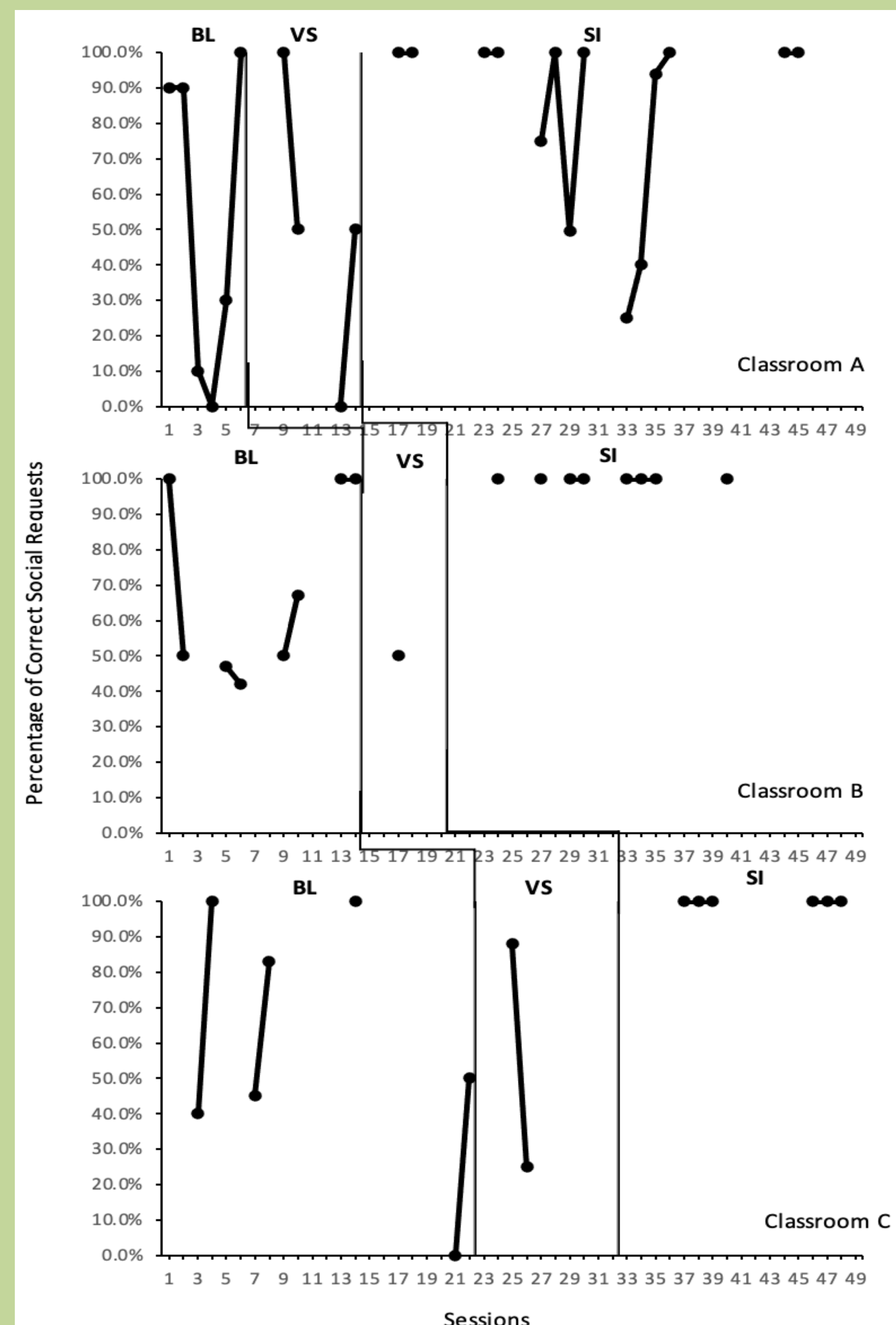


Figure 2: Average Percentage of Correct Social Requests Per Classroom Across Intervention Phases

Conclusion

- Following staff instruction there was a significant increase in the percentage of correct social requests compared to both the baseline and VS phase
- Staff instruction appears to be necessary for an increase in SR made with PECS, as seen by the difference in average SR made with PECS between the VS and SI phases
- Limitations of this study include limited amount of time in the VS phase and a high rate of absences among participants
- Future research should examine the effects of staff interaction on the amount of SR made by students, and examine the most effective staff instruction

Reference

- Dogoe, M. S., Banda, D. R., & Lock, R. H. (2010). Acquisition and generalization of the Picture Exchange Communication System Behaviors across settings, persons, and stimulus classes with three students with autism. *Education and Training in Autism and Developmental Disabilities*, 45(2), 216–229. <https://search.proquest.com/docview/742876331/>
- Pindiprolu, S.S. (2012). A Review of Naturalistic Interventions with Young Children with Autism. *The Journal of the International Association of Special Education*, 13, 69-78.