Using AAC to Build Preschool Beginning Communicators' Inclusion in Song Routines

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Introduction and Study Overview

Beginning communicators with developmental disabilities are at a disadvantage in creating social relationships as compared to their peers due in part to limited opportunities and environmental supports (Therrien & Light, 2016). Many AAC interventions for beginning communicators are focused on requesting. While communicating wants/needs is an important skill, it does not create a sense of social belonging that all individuals, including children with developmental disabilities, deserve to experience (Light et al, 2002).

The study included six preschool-age children with developmental disabilities who were beginning communicators and occurred within a social song routine. A song routine was chosen because songs are an integral part of the preschool classroom. Further, all teachers reported no language and minimal participation during classroom songs routines at "circle time." The intervention used high-tech AAC devices programed with visual scene displays (VSDs; Shane 2006) that were color-realistic photo representations of each song, all featuring human children to promote engagement (O'Neill et al., 2019).The VSDs provided high context and meaning for language learning (Holyfield et al., 2019). The intervention also included interaction strategies from the interventionist.

Study Procedures

Baseline: Clinician sang a song to an instrumental track with a cloze phrase for the participant to fill in. The cloze phrases are as follows:

- "The wheels on the bus _____."
- "If you're happy and you know it _____."
- "Row, row, row your boat gently _____."

Intervention: Participants were provided with high-tech AAC during the song routines. If the participant responded independently to the cloze phrase, they received verbal praise, and the next trial began. If they did not independently respond the following hierarchy of prompting was implemented:

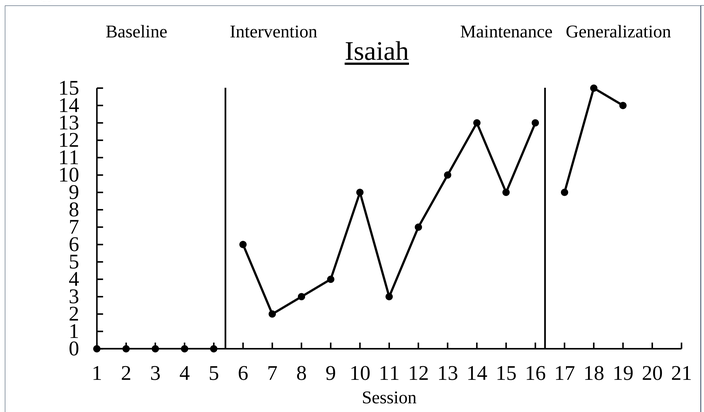
- Gestural prompt via pointing
- Visual and vocal prompt
- Model the behavior
- Praise upon cloze phrase completion

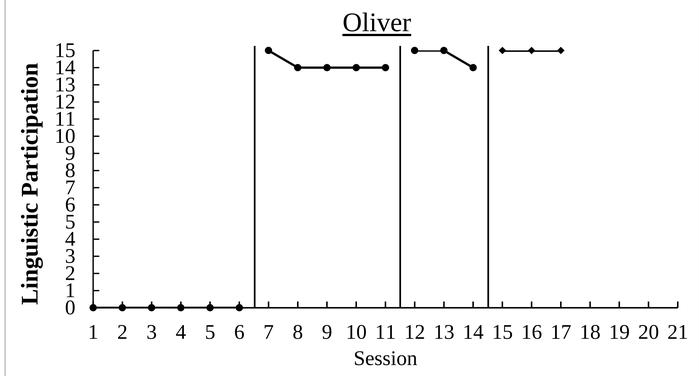
Maintenance: Identical to baseline, but with AAC present

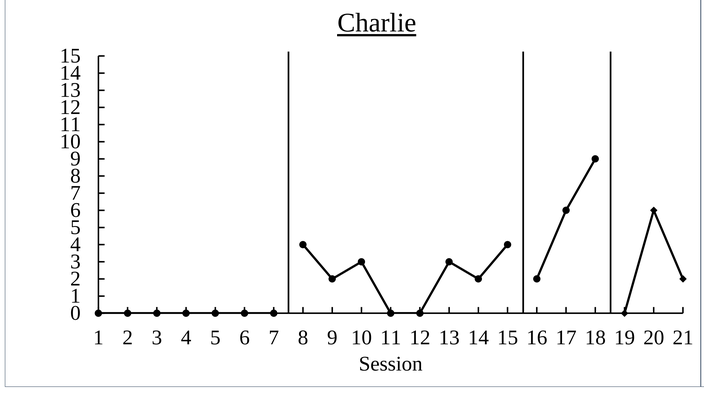
Generalization: Identical to baseline, but all three VSDs were presented during every trial.



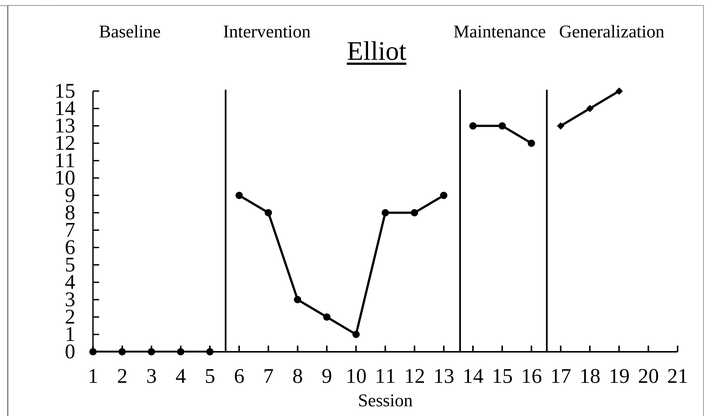
Leg 1

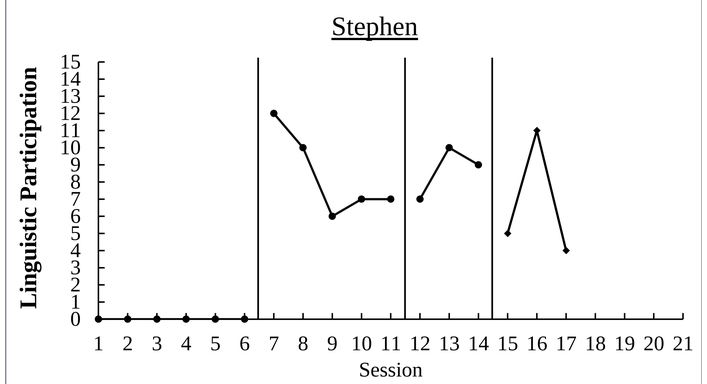


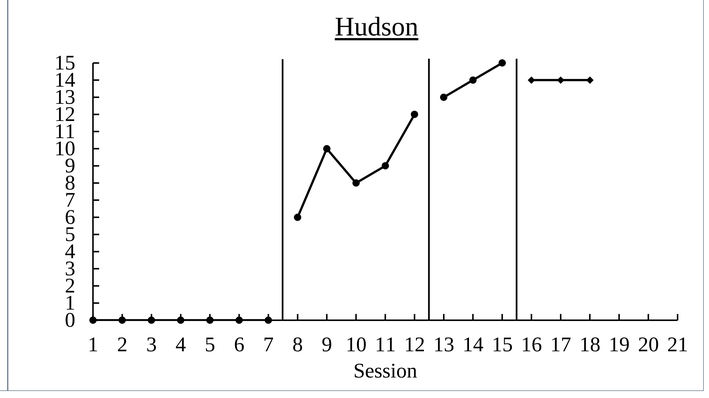




Leg 2







Average Indices of Happiness per Session by Phase:

Participant	Baseline	Intervention	Maintenance	Generalization
Isaiah	3.4	8.36	5.667	NA
Oliver	4.5	6	9.667	8.33
Charlie	1.3	2.125	2	7
Elliot	11	14.875	13.667	17
Stephen	0.83	7	3.33	7.3
Hudson	0.3	7.2	18.67	10.67

Conclusions

All six participants made significant gains in linguistic participation through AAC/VSD intervention. Gains largely maintained and generalized, suggesting that the students may be able to participate in such routines within everyday life to increase their social inclusion. Furthermore, participants increased their indices of happiness and were generally more engaged when they had the opportunity to respond in intervention. Clinicians should consider the use of meaningful, contextualized VSDs to increase social inclusion and closeness for preschool beginning communicators.

References and Technology Info

Hardware used in Intervention:
iPad

Software used in Intervention:
Scene and Heard (Therapy Box)

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