

Supporting Communication for Adolescents With ASD During Social Interactions Using AAC Video Visual Scene Displays

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ASHA 2019

Disclosure

- The EasyVSD app was developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation research (NIDILRR grant number #90RE5037) to the Rehabilitation Engineering Research Center on Augmentative and Alternative Communication (RERC on AAC). <http://rerc-aac.org>
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- Disclosure: The author has no relevant financial relationships or relevant non-financial relationships to disclose



Background

- Positive social interactions support quality of life
- Many individuals with ASD struggle with interacting socially
  - Additional challenges for adolescents
  - Complex communication needs

Background

- Adolescents with ASD are 5x more likely to describe themselves as "often or always" feeling lonely than adolescents without ASD
  - (Lægaard, Nielsen, Eriksen and Goossens, 2010).
- Adolescents with ASD and complex communication needs rarely have opportunities to interact with peers
  - even when they are in close physical proximity
    - (Chung, Carter, and Cisco, 2012)

Potential Solution

- Support interactions on topics of personal interest
  - Age appropriate activity
    - Interesting to both participants with ASD and peer partners
    - Videos
- Provide easy access to needed vocabulary
  - Support communication
    - Range of vocabulary

Potential Solution

- Enable both participants to act as equal contributors
  - Communication in the moment
  - Provide a context for communication
- Require limited adult support

## Video Visual Scene Displays: video VSDs

- capture meaningful events within an individual's life in an integrated scene (i.e., video)
- language concepts embedded as hotspots within the scene



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## VideoVSDs

- Incorporate motivating interests
- Automatic pause creates a natural cue
- Support just-in-time addition of relevant vocabulary
  - Just-In-Time programming

## Research Question

- What is the effect of a video VSD app, along with instruction in the use of the app and programming of the app, on the number of communicative turns taken by adolescents with ASD during social interactions with peer partners?

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## Methods

- Design: Multiple probe experimental design across four dyads
- Participants
  - 4 participants with ASD and complex communication needs
  - 4 peer partners
- Setting
  - Common areas

## Dependent Variable

- Frequency of symbolic communicative turns taken by the participants during a 10 min. interaction with a peer partner
  - Included speech, signs/gestures, or AAC system (typical system; activation of a hotspot) (Caron et al., 2019)
- Coded peers communicative turns

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## Independent Variable

- The video VSD app
  - supports the use of videos with integrated VSDs and embedded hotspots, along with instruction and just-in-time programming

## Independent Variable

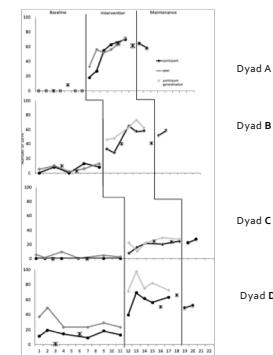
### Instruction

- Provided to the dyad
  - A single training session
  - 1. Video model demonstration of the navigation of app
  - 2. Use of the app to communicate with a partner
    - 1. Wait, Respond, Expand
  - 3. Video model demonstration of adding hotspots with just-in-time training.
- approximately four minutes.

## Methods

- Baseline
  - Access to the video VSD app with videos
- Intervention
  - Training
  - Access to the video VSD app with videos AND programming features

## Results



## Social Validity: Participants with ASD

- Talking Mats procedure
- Each participant agreed that they enjoyed using the tablet and interacting with their peer buddy



## Social Validity: Peers

She's never talked to me before!

My buddy used to not say anything to me, I didn't think they wanted to talk to me. Now we have a relationship, we are friends.

## Social Validity: Staff

It (the video) took a lot of the awkwardness out of the interaction and it really ended up being two friends spending time together.

It was great to see our students communicating and enjoying their peers company. They were actually enjoying the interaction and answering their peer.

## Implications and Next Steps

- Topic of shared interest for the participant and the peer
- Automatic pausing of the video – provides the opportunity for both the participant *and* the peer to contribute to the interaction
- Easy access to relevant vocabulary
- Limited need for adults