Increasing Social Interactions with Peer Partners for Adolescents with ASD using Video Visual Scene Displays

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Background

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

Background

- Chung, Carter, and Cisco (2012)

- 51 hours of observation
  - two of the four adolescents with ASD and complex communication needs never interacted with peers
    - even when they were in close physical proximity
  - unless peer interactions were specifically planned and supported by teachers and/or staff, students with ASD and complex communication needs interacted with peers infrequently, if at all.

Rationale

- Age appropriate activity
  - Interesting to both participants with ASD and peer partners
    - YouTube videos
- Support communication
  - Communication in the moment
  - Range of vocabulary
    - AAC supports
- Provide a context for communication
  - YouTube videos

Rationale

- Video Visual Scene Displays (video VSDs)

  - capture meaningful events within an individual's life in an integrated scene (i.e., video)
  - with language concepts embedded as hotspots within the scene in order to reduce cognitive and linguistic demands
    - incorporate motivating interests
    - Automatic pause creates a natural prompt
    - embed communication into the activity
    - support just-in-time addition of relevant vocabulary
      - Just-In-Time programming

Just – In – Time Programming

- Just-in-time programming allows the addition of vocabulary as it is needed in the moment
  - may increase the individuals' engagement
    - in the selection of vocabulary
    - as well as the programming process

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?

Methods

- Design: Multiple probe experimental design across four dyads
- Participants
  - 4 participants with ASD and complex communication needs
    - 2 male; 2 female
  - 4 peer partners
   - 1 male, 3 female

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)
 - Coded peers communicative turns

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
- Instruction
  - Provided to the dyad
    - A single training session
    - Video model demonstration of the navigation of app
    - Use of the app to communicate with a partner
      - Wait, Respond, Expand
    - 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

Results
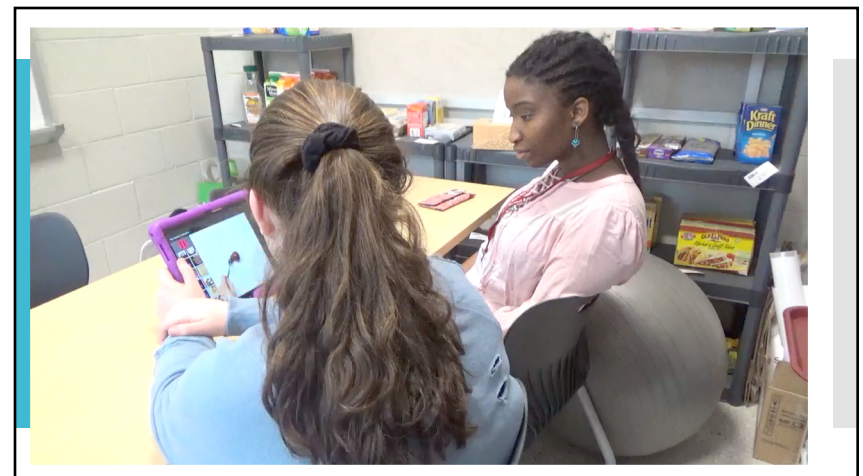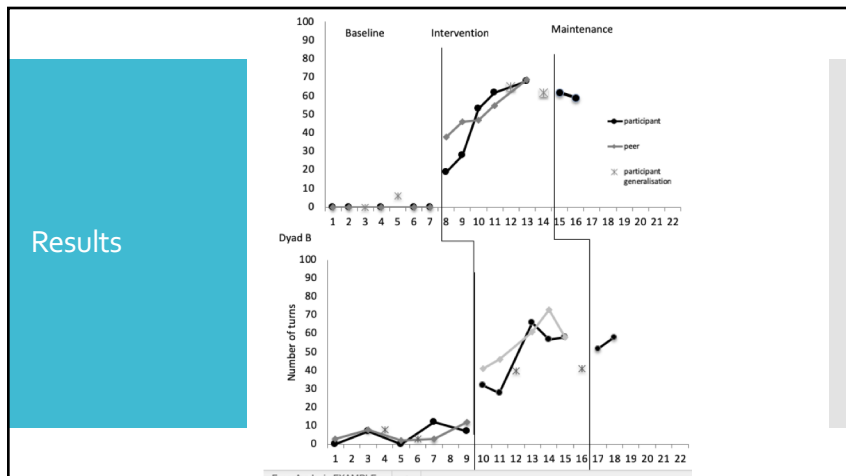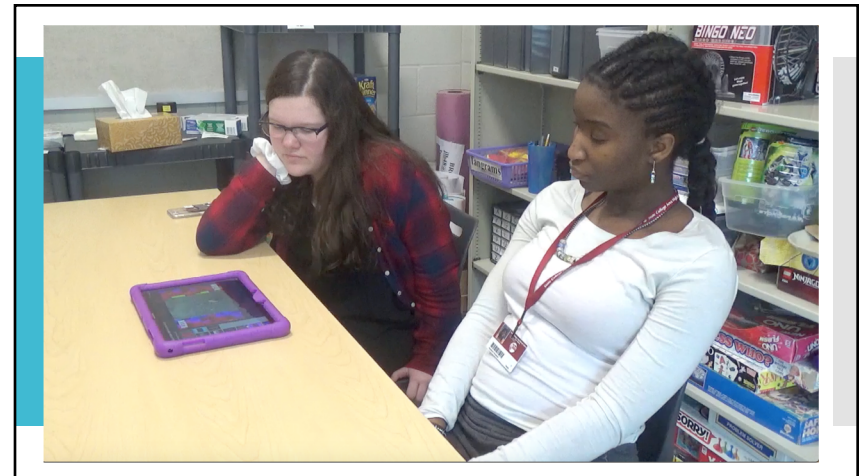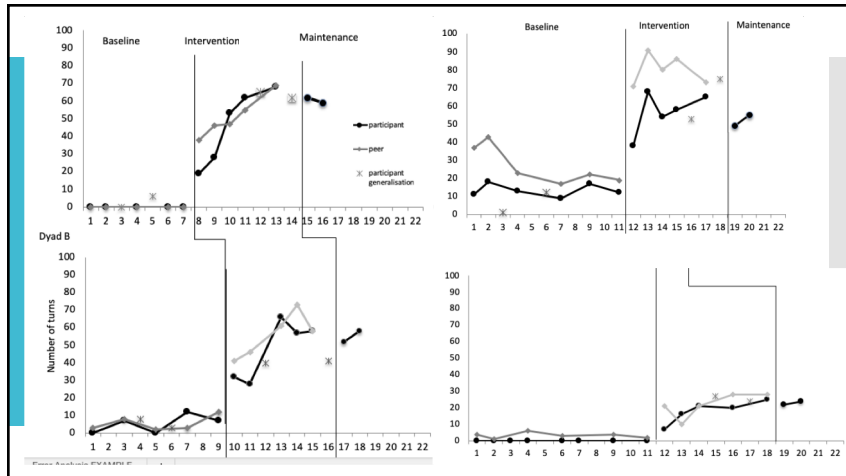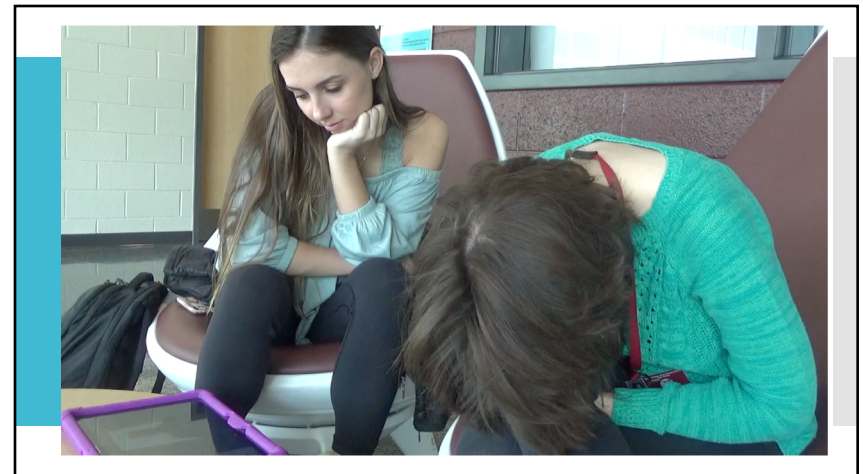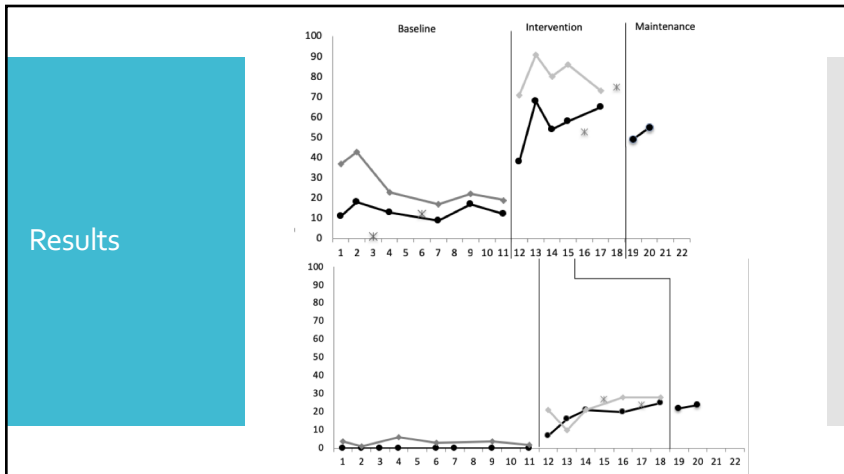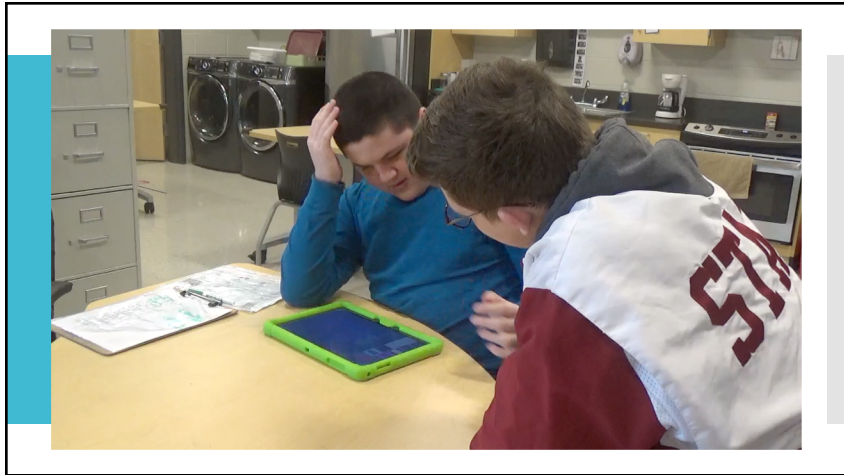
Social Validity: Participants with ASD

- Talking Mats procedure

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

Social Validity: Peers and Staff

She's never talked to me before!

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

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

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

Implications

- Topic of shared interest for the participant and the peer
  - P1 – enjoyed the peer's choice of video the best
- 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
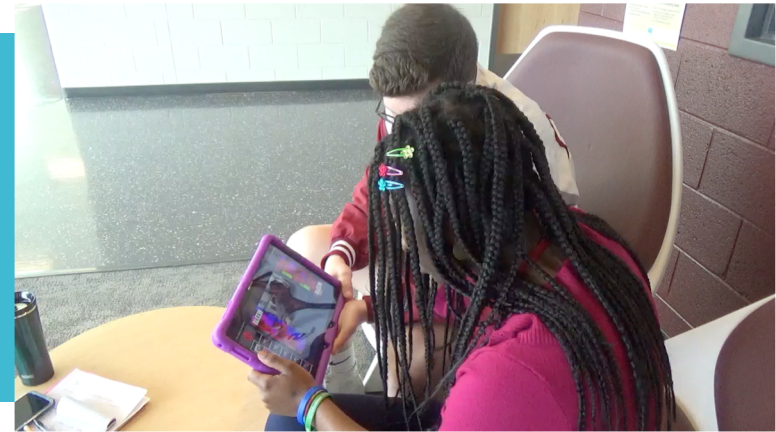
Discussion/ Questions

- Challenges in identifying areas of shared interests for adolescents with and without disabilities
  - Other activities?
- Creating opportunities for more balanced social interactions that represent the reciprocity typically identified in conversations
  - Initiations vs. responses
- Considerations for interventions that are easy to implement for both staff and peer partners

Thank you!