



## BACKGROUND

- Children with ASD reportedly engage with electronic screen media, including videos, more often than all other leisure activities (Mazurek & Wenstrup, 2013; Shane & Albert, 2008).
- Interventions that incorporate the interests of children with ASD have been associated with positive outcomes with respect to social/communication skills (Ninci, Rispoli, Burke & Neely, 2018).
- Challenge:** For individuals with ASD and complex communication needs, AAC systems are often separate from the device that plays the videos. **In order to watch videos and talk about them, individuals who use AAC must shift their attention away from their preferred activity (the video) in order to compose a message on their AAC system, then shift attention back to the video.**
- Potential Solution:** Visual scene displays (VSDs) embedded within videos (i.e., “video VSDs”) (Light et al., 2014). Video VSDs allow the individual to quickly access relevant vocabulary in the exact moment it is needed to discuss events as they are depicted within the video.



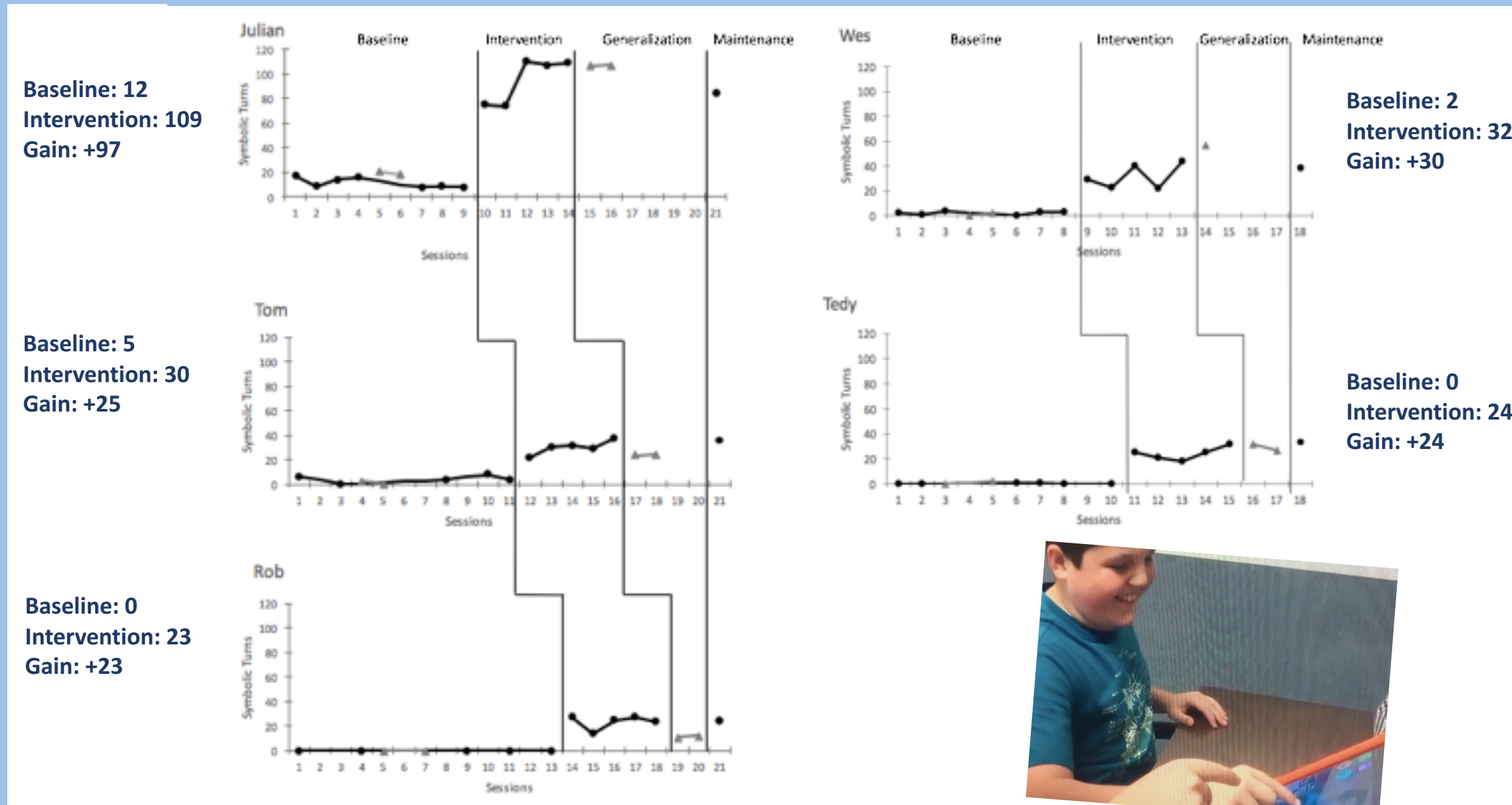
## RESEARCH AIM/QUESTIONS

- Introduce video VSD as a tool for promoting social communication within highly motivating, meaningful, video-based activities for individuals with ASD and limited speech who require AAC. Specifically:
  - 1) What is the effect of using a video VSD on the frequency of communicative turns taken by an individual with ASD and CCN, during a shared preferred leisure activity (YouTube)?;
  - 2) What is the impact of the video VSD on the type of turn (i.e., speech, SGD, sign), taken by the individual with ASD and CCN?



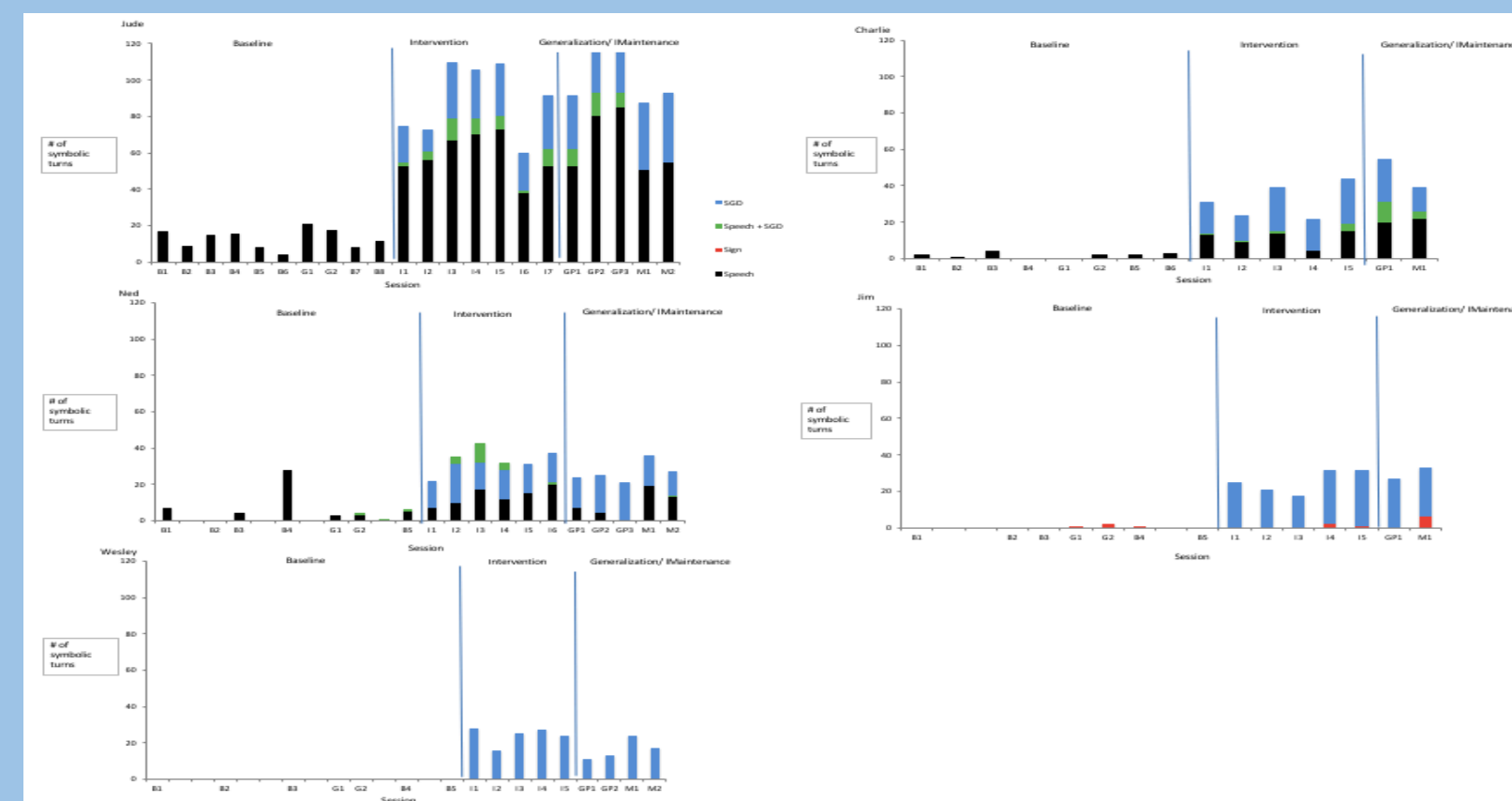
## RESULTS

### Symbolic Turns



The results indicate that there was an increase in symbolic turns, for all participants, with the introduction of the video VSD software. All participants were able to generalize results to a different communication partner, as well as maintain results 4 weeks after the last intervention session.

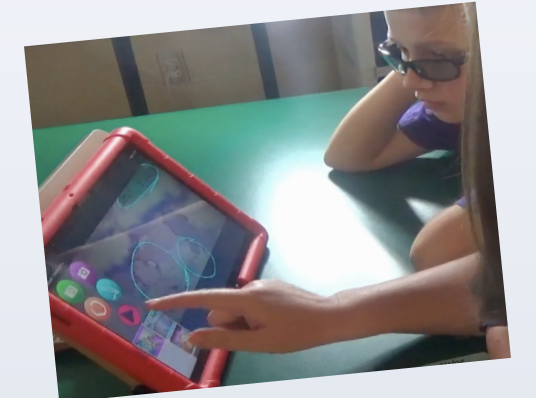
### Communicative Modes



The results indicate that there was an increase in speech (for those who used this mode) with the introduction of the video VSD software. The finding supports previous research that demonstrates that AAC does not inhibit, and in fact can promote, speech production (e.g., Millar, Light, & Schlosser, 2006)

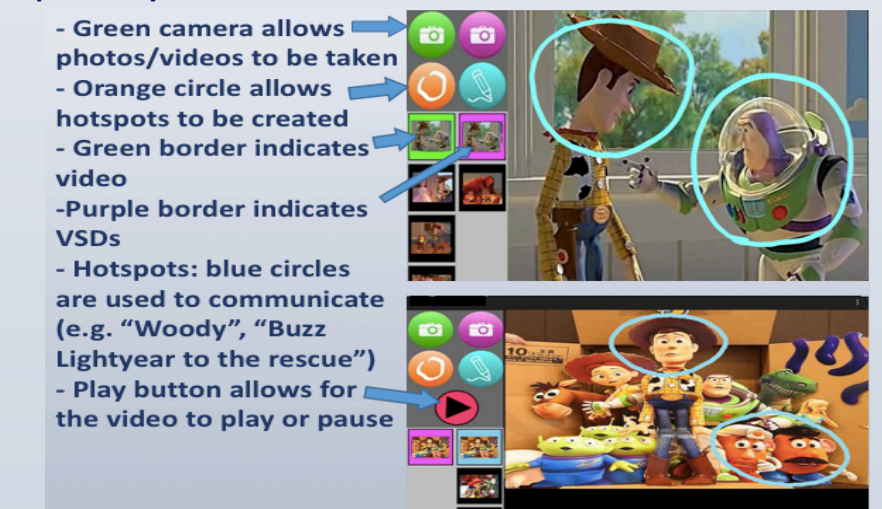
## METHOD

- Design:** Single subject across 3 participants, with a replication of 2
- Participants:**
  - 5 males with severe ASD
  - Ages 10;4 – 18;1
  - All participants have 1:1 aides
  - All participants are educated in substantially separate classrooms
  - 3 participants have some speech



## MATERIALS

- Samsung Galaxy 12.2 with EasyVSD application (version 1.53) developed by InvoTek



## PROCEDURES

Baseline	Intervention	Generalization	Maintenance
-10 minute sessions with researcher -5 bookmarked preferred YouTube Videos on iPad -Researcher would comment/question every 60 seconds or respond with extension/recast if communication attempt was made by participant -Current forms of AAC available	-10 minute sessions with researcher -5 videos (1-2 minutes in length) uploaded and programmed within EasyVSD application -Each video had 5 pre-programmed VSDs & 3 hotspots per VSD -Researcher would comment/question every 60 seconds or respond with extension/recast if communication attempt was made by participant -Current forms of AAC available, as well as EasyVSD	-10 minute sessions with known partner (all 1:1 aides) -Same procedures -Use of tablet and video VSDs	-10 minute sessions with researcher -Same procedures -Use of tablet and video VSDs -4 weeks after last intervention session

## DISCUSSION/CONCLUSION

- All participants demonstrate an increase in communication turns with the introduction of video VSDs. This is potentially due to:**
  - Communication opportunities embedded directly within each video serving as an implicit prompt to communicate
  - Communication opportunities embedded to reduce attention shifting and minimize demands
  - Preferred context and vocabulary programmed in the moment through hotspots

## ACKNOWLEDGEMENTS

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