

Does AAC Prevent Speech Production? AAC Strategies to Target Natural Speech and Language

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Research Aims

- Clinicians and families are often concerned that AAC may hinder speech production
 - “Wait and See” approach
- Does AAC indeed not prevent speech and can it have facilitative effect?
- Modify traditional PECS protocol for infusion of an iPad
- Evaluate effects of modified PECS protocol across clinic, home, and school environments
 - Outcomes: requesting and natural speech production

Methods

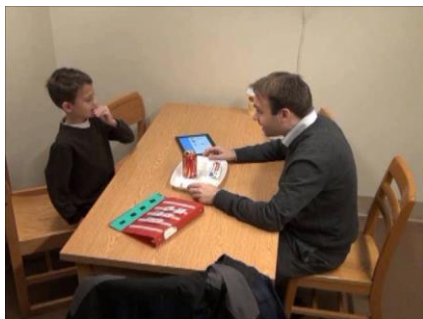
- Multiple Baseline Design across settings (Baer, Wolf, & Risley, 1968)
 - Intervention repeated across clinic, home, and school environments plus final maintenance phase
 - iPad with SPEAKall! replaces ProxTalker, intervention starts immediately with iPad
 - Began with Phase 3 or Phase 1 of modified protocol
- Dependent measures:
 - Requesting skills: number of correct requests during 20-trials session
 - Emerging speech: word vocalizations or word approx.

Participant Characteristics

Participant	Dx*	Communication Skills
“1”: Male, 10 yrs.	severe autism	limited speech – vocalizations, gestures
“2”: Male, 13 yrs.	severe autism	limited speech – vocalizations, jargon
“3”: Male, 10 yrs.	severe autism	highly echolalic, jargon, no functional, meaningful words
“4”: Male, 12 yrs.	severe autism	mainly nonverbal with few vocalizations, some gestures

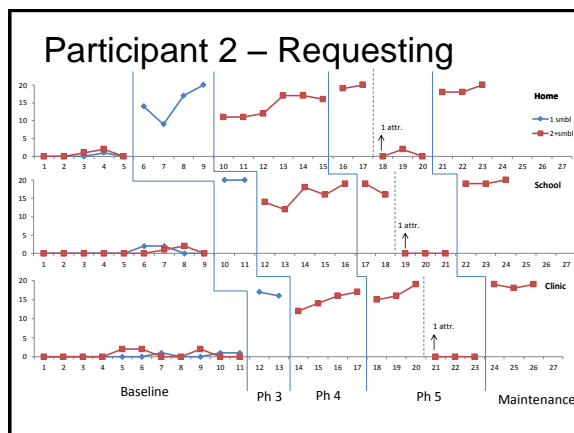
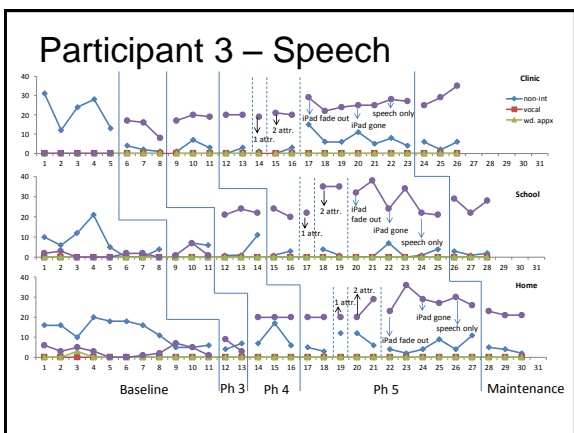
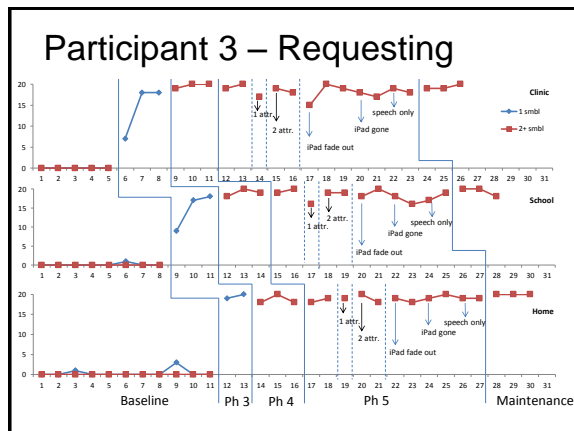
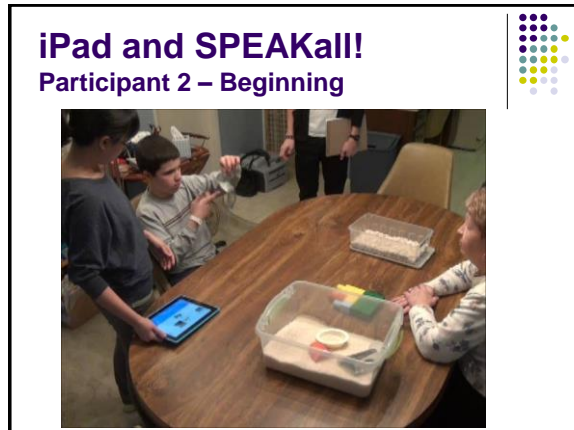
*based on ADOS and CARS scores

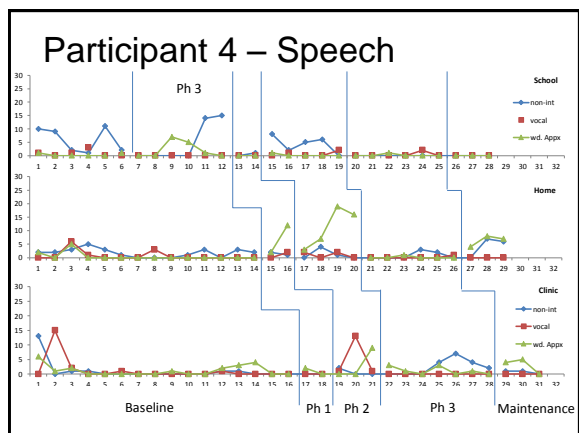
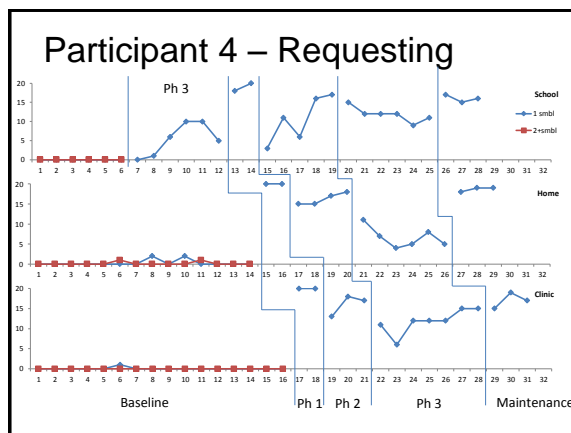
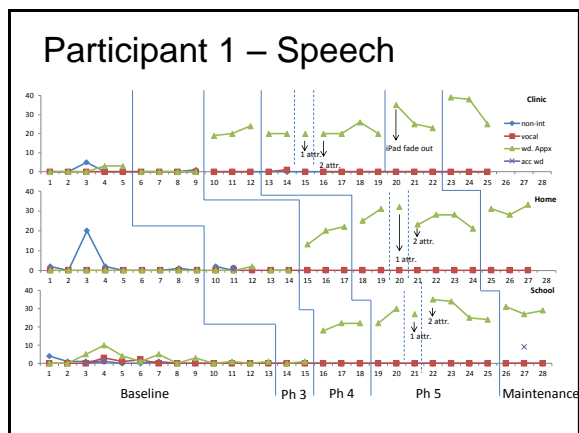
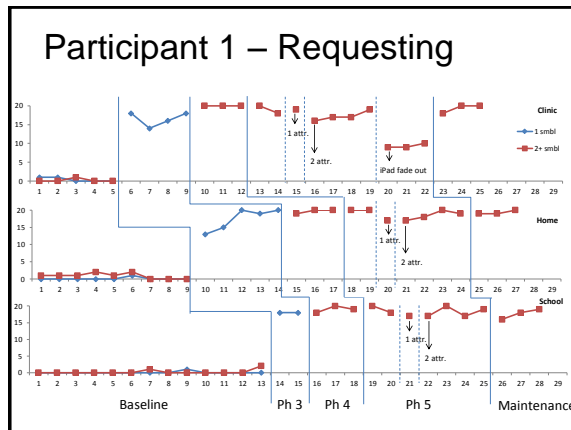
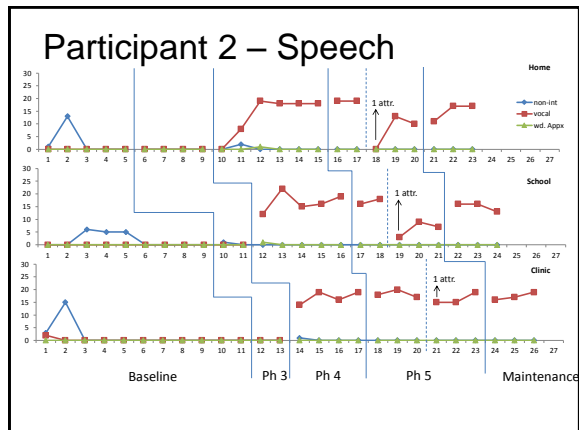
iPad and SPEAKall! Participant 3 – Baseline



iPad and SPEAKall! Participant 3 – Middle Stages

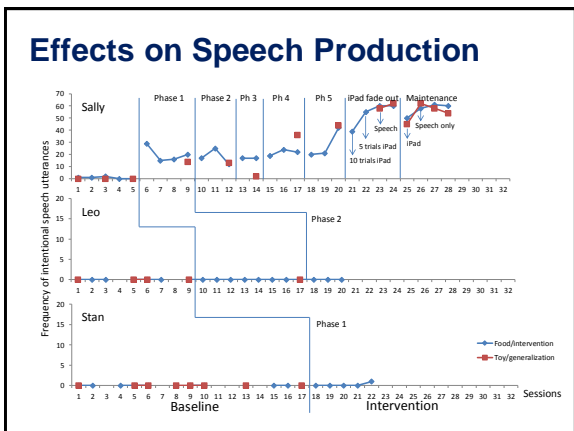
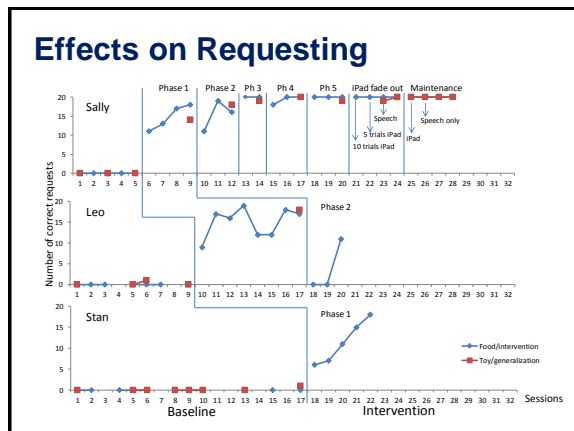






Parent Training Approach

- **Parent-implemented intervention:** Parents receive comprehensive training
 - General workshop at parent support group
 - Written instructions
 - Modeling and role playing
 - Video resources
 - Sole trainer for child, clinician only provides feedback
- Two clinicians with advanced PECS training independently checking sessions for treatment integrity
- Treatment schedule was 2 days/week, with 1-2 sessions each day

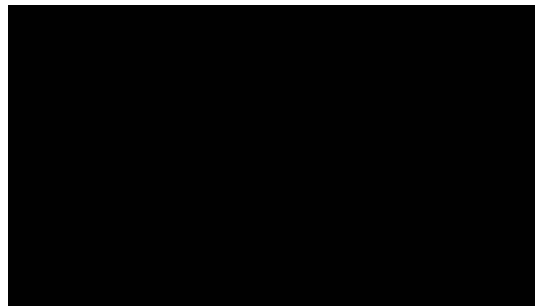


- ### Conclusions
- Findings provide support that AAC can have facilitative effect on natural speech development
 - There may be a particular role for shaping echolalic utterances
 - Refute myth that AAC prevents speech
 - Confirm augmented input may enhance expressive and receptive communication development
 - Confirm PECS principles (behavioral) hold true regardless of modality

Conclusions (cont.)

- All participants mastered iPad intervention, but varied in ability to complete later protocol phases; effects are replicable across settings
- Pre-treatment speech skills and degree of cognitive impairment likely moderator variables
- Results underscore the potential of including parents for maximizing benefits of AAC intervention in autism

Parent Perspective



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Questions ???



References



- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91-97.