**Abstract:**
Individuals with complex communication needs who utilize Augmentative and Alternative Communication (AAC) systems encounter barriers that impact effective communication across situational contexts. Limited “natural” practice opportunities, reduced rate of communication, and the “wait time” required by the communication partner are examples of these barriers. The current study conducted a case study which investigated a role playing treatment approach that focused on specific AAC language modeling (i.e.: verbal & visual “scripts”) for communicating in natural “everyday” scenarios. The goal was to determine whether role play practice for AAC users in both clinical and natural settings impacted generalization of skills during spontaneous conversation in the context of a real situational exchange. First, the participant completed role play training in 1:1 clinical sessions; then practiced the role play training in the natural context. Lastly, the approach was tested by video recording the individual during 2 separate spontaneous, unassisted conversations in the natural environment. Analysis of data is still on going and results will be discussed in terms of rate and accuracy of communicative exchanges in both the clinical and natural settings. Implications on traditional AAC therapy will be discussed.

**Introduction:**
Individuals with Complex Communication Needs (CCN) who rely on the use of a Speech Generating Device (SGD)/Augmentative and Alternative Communication (AAC) to express themselves, continue to struggle with consistent successful “natural” social conversational exchanges. Reduced rate of communication and the “wait time” required by the communication partner; negatively impact successful conversational exchanges. Additionally, conversational exchange “practice” outside the traditional therapy environment is not typically used as a therapeutic approach. As a result,
generalization of trained skills into a natural context remains inconsistent. Without successful practice in everyday situations, individuals with CCN who use AAC are at risk for not developing spontaneous and effective conversational skills (Todman, Alm, Higginbotham & File, 2008; McCarthy & Light, 2005) thus negatively impacting quality of life and independence.

Research continues to report the challenges that decreased rate of communication for individuals who use AAC creates. Reduced rate continues to be found as the leading obstacle for insufficient efficient and effective communication between AAC users and speaking conversational partners. Additionally, unfavorable impressions of individuals who use AAC, tend to be perpetuated by slow rates of communication and the brevity of utterances that are constructed in real time during interactions (Todman, et al., 2008). In Beukelman and Mirenda (2013), Goldman-Eisler (1986) report that speakers without a disability are able to generate speech at 150-250 words per minute while speaking, which allows for efficient formulated and spoken messages to occur simultaneously. However, AAC communication rate measurements range from 15-25 times slower when compared to verbal communication rates (Beukelman & Mirenda 2013).

McCarthy, Light, and McNaughton (2007) discuss how students who use AAC systems face problems related to social encounters with peers, challenges meeting academic goals, negative attitudes of teachers and staff, and the overall lack of training to personnel (Kent-Walsh, Light, 2005). Unfortunately, this problem continues through adulthood across contexts for individuals with CCN. Higginbotham (2001) further discusses how the form of language (e.g.: formulaic vs. creative) that people communicate with during social interactions is dependent on time constraints and the need to diminish cognitive processing burdens, but more importantly relies on the particular communication situation (e.g., conversing with friends versus your employer, ordering at Burger King versus eating in an unfamiliar restaurant). This information argues the need for further research on training conversational skills in social and/or natural environments.

Research and development have focused on strategies, techniques, and even design of AAC to focus on increasing interactive communication rate. Examples include, but are not limited to utterance based approaches (Todman, et al., 2008), word prediction, on-line construction of messages, etc. However, limited research has been completed on the actual therapeutic models for how to teach an individual to use their device that may or may not contain these rate enhancing features. In Beukelman and Mirenda (2013), Hunt, Alwell, and Goetz (1988, 1990, 1991a, 1991b) describe “conversational coaching” a strategy to teach individuals to use graphic or SGD-based AAC displays in conversational interactions. This strategy teaches basic conversational skills (i.e.: commenting, requesting, asking questions, responding to questions, etc.) through the use of unobtrusive prompts (i.e: gestural, physical, indirect verbal, and direct verbal). Research has proven that this strategy is effective in teaching individuals with CCN how to initiate and maintain conversations (Beukelman & Mirenda, 2013; Hunt, Alwell, & Goetx, 1988, 1991a, 1991b; Storey & Provost, 1996). However, the research needs to develop further in the area of therapeutic strategies to teach generalization of conversational skills during spontaneous conversation in natural contexts.

This single case study discusses a therapeutic strategy of “role play” to train conversational skills for real life situations; first in a clinical 1:1 traditional therapy session, then in a natural environment. Lastly, testing the approach during a spontaneous conversation in a natural context. A select individual trialed this therapeutic strategy to substantiate the need for further research on the efficacy of role playing on enhancing spontaneous AAC communicative exchanges.

**Aim of project**

The aim of the current project is to answer the following questions:

1. Does training a modeled language script in 1:1 therapy improve the effectiveness of a communicative exchange in the natural context? This will be measured by:
a. Video analysis through InqScribe © both from clinical sessions and natural contexts
   i. Evaluation of the clarity of the message production
2. Does training a modeled language script as a therapy approach increase an AAC user's rate of communication in a natural context? This will be measured by:
   a. Video analysis through InqScribe © both from clinical sessions and natural contexts
      i. Measuring the length of time it takes to produce a phrase from beginning to end
      ii. Measuring the number of selections on the device that need to be made to produce the message
      iii. Measuring the number of navigations between page sets to produce a message
      iv. Frequency of the use of utterance based messages vs. use of word prediction with on screen keyboard.

Methods:
An Adult with CCN who has been an independent AAC consumer for 15+ years was selected for this case study. This participant used a DynaVox series 5 Vmax SGD. Therapy will be conducted as a single case design (baseline, language script training, context training, maintenance (A|B|C|X)) with generalization probes and will be video recorded for data analysis purposes.

All videos are being analyzed for the following:
1. Utterance length and structure
2. Latency of utterance productions
3. Number of selections used to produce each utterance
4. Number of phrase navigations required to produce each utterance
5. Frequency of the use of utterance based messages vs. use of word prediction with on screen keyboard.

Results:
The intervention phase is ongoing at this time. We plan to conclude the investigation by March, 2016.

Declaration of Interest Statement (see ASHA forms):
Authors Smith, Vandegriff, Higginbotham, and Ballow formally disclose that they have no financial or other interest in objects or entities mentioned in this paper (e.g.: DynaVox © series 5 Vmax SGD, InqScribe ©).

References:
Kent-Walsh J. E., Light J. C. (2003). General education teachers' experiences with inclusion of students who use augmentative and alternative communication. Augmentative and Alternative Communication; 19(2)


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Program Planner/Instructional Personnel’s Name: Carly Vandegrift

Course Title: Role Playing and AAC: A Therapeutic Approach to Improve Spontaneous

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Program Planner/Instructional Personnel's Name: Jeff Higginbotham

Course Title: Role Playing and AAC: A Therapeutic Approach to Improve Spontaneous

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Program Planner/Instructional Personnel’s Name: Matthew Ballow

Course Title: Role Playing and AAC: A Therapeutic Approach to Improve Spontaneous

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