**Title:** A Pilot Study of Video Self-Modeling in Fragile X Syndrome

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**Introduction:** Fragile x Syndrome (FXS) is a genetic disorder marked by global developmental delays and marked impairments in pragmatic language—i.e., language used for social purposes (Roberts et al., 2002; Belser & Sudhalter, 2001). Despite this being an area of significant need for this population, interventions for pragmatic language have received little to no research. Successful social interactions are a significant indicator of successful functioning in both school and later in life (Cabrara, Barbaranelli, Pastorelli, Bandura, &Zimbardo, 2000). Poor pragmatic language also creates an increased risk of bullying as these individuals are unable to understand and follow the increasingly abstract rules that govern social opportunities. In order to provide these individuals with improved functioning in their communities, it is vital that they are taught the skills necessary to interact more appropriately with others. Video self-modeling has been used in several studies with individuals with autism spectrum disorder (Bellini & Akullian., 2007). The proposed study will directly assess initial efficacy of video self-modeling on pragmatic language skills in children and adolescents with FXS.

**Method:** Participants were four individuals with FXS, ranging in age from 15 to 20. Baseline testing included the Stanford-Binet, Fifth Edition test (SB5; Roid, 2003), Autism Diagnostic Observation Schedule-Second Edition (ADOS-2; Lord et al., 2012), caregivers completed Children’s Communication Checklist – Second Edition (CCC-2; Bishop, 2003), and teachers filled out a Pragmatic Checklist (adapted from Goberis, 1999). The Pragmatic Checklist was used to determine the target behavior, baseline data was collected over three observation sessions during week 1 of the study. Ongoing data collection consisted of 15 minute observation three times a week, in which target behaviors were marked as either occurring during an opportunity or not occurring (e.g., if a student was working on appropriate greetings, they would be observed during their morning routine and each time a new person entered and was within a reasonable distance that would be coded as an opportunity).

**Results:** Participant 1 had a target skill of appropriately greeting peers as defined by saying “hello”, “hi”, or waving. He had a pre-video success rate of 26.92%, a during-video success rate of 39.29%, and a post-video success rate of 50%. Participant 2 also had a target skill of appropriately greeting peers. His pre-video success was 5.88%, during-video success was 0%, and post-video success was 4%. Participant 3 targeted skill was initiating and maintaining conversation with non-preferred peers as determined by potential opportunities to greet peers and contextually appropriate responses to when peers attempted to initiate conversation with her. She had a pre-video success of 4.76%, a during-video success of 31.71%, and a post-video success of 61.11%. Participant 4 also had a target skill of initiating and maintaining conversation with non-preferred peers. His pre-video success was 14.63%, during-video success was 40%, and his post-video success was 48.28%.

**Discussion:** Overall, this pilot study shows preliminary support for (1) the efficacy of VSD methodology in pragmatic language intervention for individuals with FXS, and (2) the ease of incorporating VSD interventions into a school setting. Each of the participants, with the exception of Participant 3 made improvements in the use of their targeted behavior. We suspect that the behavior targeted for Participant 3 was one that had been the focus of multiple previous attempts, and as such had become a source of anxiety for him, thus inhibiting his use of greetings. This study brings to light the importance of studying successful ASD behavioral interventions in FXS, because though these individuals may portray similar behaviors, the underlying anxiety in FXS can cause unforeseen difficulties. Future studies of VSD efficacy for behavioral interventions in FXS should aim to work with a larger sample size in order to draw conclusive, statistically significant data.

**References/Citations:**


