Investigating the Use of Video Modeling to Teach the Expressive Use of Personal Pronouns to Children with Autism

Katie Lichtblau and Kevin P. Klatt

Psychology Department, University of Wisconsin-Eau Claire

Introduction

Many young children with autism engage in pronoun reversal and little research has been conducted to address this communication deficit. Past research to address pronoun reversals includes precorrecting and reinforcement (Lovass, 1977) and modeling (Hendler, Weisberg, & O'Dell, 1988).

Modeling procedures have been found to be effective in teaching multiple skills for language and communication including loudness of speech (Coleman & Stedman, 1974), the development of yes/no answers (Weisberg, Stout & Hendler 1987), and singular vs. plural sentences (Sarra, Guess & Byrnes, 1972).

Video modeling has been used to teach a variety of communication and social skills to children with autism including increasing social interactions (Iona, Coutouros & Kymissis, 2005), improving conversational skills (Charlop & Milstein, 1989), daily living skills (Keen, Brannigan, & Cuskelly, 2007), play skills (Charlop-Christy, Le, & Freeman, 2000), and reducing problem behavior (Lucas & Carter, 1996).

The purpose of this study was to investigate the use of video modeling to teach expressive use of personal pronouns “my” and “your” to children with autism. Probes were conducted to examine generalization to receptive use.

Participants and Setting

Three male participants all diagnosed with autism. Ages of participants ranged from 4-6 years.

Data collection took place during regular therapy hours at a university based autism program or in the participants’ respective homes.

Pre-Experimental Assessments

Skill Testing: Participants needed to be able to expressively and receptively identify five body parts. Additionally, as described by Weiss & Harris, 2001 each participant had to have the prerequisite skills of video modeling. These skills are attending and one step imitation.

Multiple-Stimulus Without Replacement Preference Assessment: Based on the procedure described by DeLeon & Iwata (1996) six edibles or tangibles were presented to the participants to determine potential reinforcers to teach skills. Upon selecting the item it was removed from the array for the remainder of the assessment. This continued until all the items were chosen or 30 seconds passed without the participant selecting an item.

Efficiency Assessment: Before each experimental session, the participants selected a preferred edible or tangible item from an array of three that would be used as a reinforcer during the research session.

Procedure

A multiple probe single-subject design across participants was used to access skill acquisition. Baseline data were collected for both expressive and receptive responses.

During the baseline condition the experimenter guided the participant’s hand to a body part located on either the instructor or themselves and asked, “What are you touching?” This instruction was paired with each body part on both the experimenter and participant resulting in 10 expressive baseline trials (5 my and 5 your). The experimenter also instructed, “Touch my/your (body part)” and named one of the participant’s five known body parts. Each body part was paired with the pronouns “my” and “your” resulting in 10 receptive baseline trials. Data of the receptive use of both pronouns were collected to analyze if there was generalization from teaching the expressive skill.

Treatment conditions consisted of 24 trials and lasted approximately 15 minutes. There was a total of 15 expressive “targeted” pronoun trials, 3 expressive probes of the untargeted pronoun, and 6 receptive probes (3 my 3 your) to test for generalization. A prerecorded video (approximately 45 seconds in length), was divided into 5 segments (approximately 9 seconds each). Each segment included a body part being paired with the correct usage of the targeted pronoun (e.g. my or your). A typical video consisted of adult 1, taking the hand of adult 2 and touching a body part (such as head) on either themselves (adult 1) or on the other individual (adult 2) and asking, “What are you touching?” Adult 2 then responded, “I am touching your/my head.” Each video consisted of two models of the same instruction and the correct response. After that, the video device was turned off and the participant was instructed, “Let’s do the same.” The instructor and the participant then engaged in the same behavior was just presented in the video, (e.g. the instructor guided the hand of the participant to either their own head or the participant’s head and asked, “What are you touching?”).

Treatment Condition 1: In condition one, a prerecorded video modeling the correct usage of the pronoun “your” was shown to the participants.

Treatment Condition 2: In condition two, a prerecorded video modeling the correct usage of the pronoun “my” was shown to the participants.

No Video Prompt: Following treatment conditions one and two, the video prompt was removed and the participant was asked, “What are you touching?” in relation to a body part on either the instructor or themselves and data was recorded whether the correct pronoun was used.

Results

This study investigated the use of video modeling to teach the expressive use of personal pronouns “my” and “your.” The results of this study suggest that video modeling was used to teach the expressive use of the pronoun “my” and “your” to two of the three participants, but the skills maintained without the video for only one participant.

The second participant was unable to respond independent of the video model. These data suggest that the participant was dependent on the video model in order to respond correctly. Further research could investigate how to fade or quickly remove the video prompt to prevent video dependency.

Direct observations regarding participant 2, suggested there was an increase in delayed echolia during and immediately following the research session. Further research could investigate the effects of post-session echolia of children with autism.

All the participants had the prerequisite skills of one step imitation and attending, yet participant 3 didn’t acquire the skill. Further research could investigate additional prerequisite skills that may not have been identified yet to use video modeling as a tool to teach skills.

Given the pervasiveness of pronouns in everyday language, a major limitation of this study is that not all variables could be controlled to prevent the participants from observing or engaging in incorrect pronoun usage outside of the research session.

Discussion

Thanks to: Kally Luck, Robbi Lindemeyer, Emily Wichman, and Andrew Jost and the UWEC Office of Research and Sponsored Programs.