

Teaching Children with Autism Spectrum Disorders to Engage in Pretend Play using Video Modeling

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Abstract

Video modeling was used to teach two children with autism spectrum disorders (ASD) to engage in pretend play with each other. Effects of video modeling were observed with both scripted and unscripted (i.e., novel) play actions and verbalizations. Both children exhibited an increase in scripted play actions and verbalizations. Additionally, unscripted play actions increased for both participants, while unscripted verbalizations remained low for one child and decreased for the other. These results indicate that video modelling may be a useful tool to teach reciprocal pretend play to some children with ASD. However, further studies should be conducted to determine effective methods for ensuring novel responses. Limitations of this case study are briefly discussed.

Introduction

Children with autism often present with delays in development of play skills. A variety of teaching procedures have been used to teach play skills to children with autism including but not limited to pivotal response training (Stahmer, 1995), modeling (Goldstein & Cisar, 1992), and video modeling (D'Ateno, Mangiapanello, & Taylor, 2003; Macdonald, Clark, Garrigan, & Vangala, 2005; Nikopoulos & Keenan, 2007). Macdonald, Sacramone, Mansfield, Wiltz, and Ahearn (2009) increased reciprocal pretend play responses (both verbalizations and play actions) using video modeling with pairs of children with autism and typically developing peers. The current study aimed to extend video modeling procedures to teach reciprocal pretend play skills to two children with autism paired together.

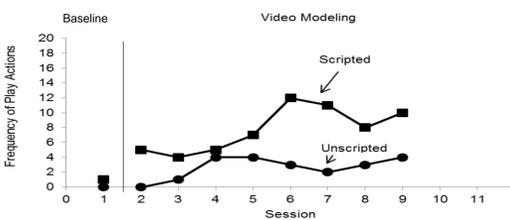


Figure 1. The frequency of scripted and unscripted play actions for Ronnie during baseline and treatment.

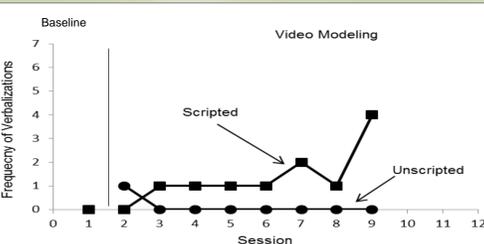


Figure 2. The frequency of scripted and unscripted verbalizations for Ronnie during baseline and treatment.

Method

Participants & Setting

The participants were two boys diagnosed with ASD. Ronnie was 11 years old, functioned independently throughout his daily routines, and communicated verbally, but had limited understanding of language and struggled in sustaining conversations with others. Harold was an 8-year-old child, functioned independently, communicated verbally, and maintained conversations with others about preferred topics. Both participants played with toys appropriately and would engage in minimal conversation (i.e., mand to each other to access required items) when playing together. Pretend play was not observed to occur for either of the participants. Sessions were conducted in a therapy room with only the play materials required, and a desk with a computer (used to play videos). Sessions were run one to two times within a therapy session, once per week.

Dependent Measures

Data were recorded on each of the following for each participant (for their role only):

- Scripted Play Actions:** Motor responses that matched those modeled in the video or any similar responses that resulted in the same environmental change observed in the video model
- Scripted Verbalizations:** Vocal statements that matched (similar or identical) the vocalizations in the video model
- Unscripted Play Actions:** Any actions observed in the video model that did not match those in the video model but that were appropriate to the context of the play theme
- Unscripted Verbalizations:** Any statements made that did not match those in the video model but that were appropriate to the context of the play theme

Procedure

Baseline. The play items were set up on the floor prior to the participants coming into the room. The participants were placed in front of the items that were related to their roles and told to play. They were given 4 minutes with the play items and a therapist observed them and recorded frequency data on the above mentioned dependent variables.

Teaching. The video model scripts were developed by the researcher by watching typical children play with similar play themed items (specifically, a firefighter theme). Therapists then created a video model by acting out the script developed by the researcher. During teaching, the play items were set up as in baseline before the participants came into the room. A computer was set up in the back corner of the room and the participants were brought directly to the table to sit down. Participants watched the video model twice (consecutively) and then were directed to the items that related to their role, and told to play. They were given 4 minutes to play with the items while a therapist observed and recorded data. There were no prompts or reinforcement provided throughout the play sessions. Video modeling sessions continued until both children mastered the play actions and vocalizations for their own role in the script. Mastery was defined as 11 play actions and seven verbalizations for Ronnie. For Harold, mastery was defined as 12 play actions and six verbalizations.

Results

Figure 1 shows the results for Ronnie's play actions. During baseline, Ronnie exhibited zero levels of both scripted and unscripted play actions. Following treatment, both scripted and unscripted play actions increased.

Figure 2 represents the results for verbalizations made by Ronnie. Although scripted verbalizations slowly increased following introduction of video modeling, unscripted verbalizations remained near zero levels.

Figure 3 shows the results for Harold's play actions. During baseline low levels of both scripted and unscripted play actions were observed. Following treatment introduction, both scripted and unscripted play actions increased with higher levels of scripted actions.

Figure 4 shows the results for both scripted and unscripted verbalizations for Harold. During baseline there were a limited number of scripted verbalizations exhibited while unscripted verbalizations were high. Following treatment, Harold's scripted verbalizations increased while those that were unscripted decreased.

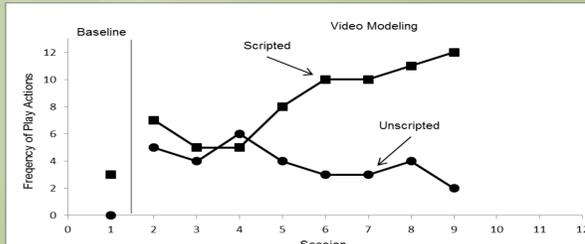


Figure 3. The frequency of scripted and unscripted play actions for Harold during baseline and treatment

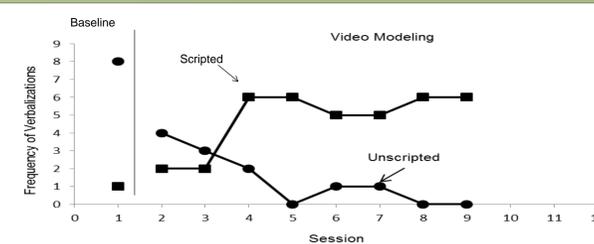


Figure 4. The frequency of scripted and unscripted verbalizations for Harold during baseline and treatment.

Discussion

Prior to video modeling sessions, both participants exhibited low levels of pretend play actions. Both children demonstrated acquisition of scripted play actions while also exhibiting an increase in novel pretend play actions. However, unscripted play actions and verbalizations remained at lower levels than those that were scripted. Overall, this case study provides additional evidence that video modeling can be an effective strategy for teaching play to children with ASD. However, it should be noted that unscripted actions and verbalizations may remain at low levels. Future studies should consider teaching methods that will ensure novel responses in order to increase contact with reinforcement in natural settings. Additionally, this study extends the findings for the use of video modeling since children with ASD were paired together rather than with typically developing peers.

There were some limitations to this study. Baseline was completed across one session only due to the low levels of play skills demonstrated by both participants in the first session. Additionally, there were no other play themes taught to the participants. The researcher decided to pilot the procedure with one theme to begin with. However, it is the intention of the researcher to use this procedure with other play themes going forward.

References

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