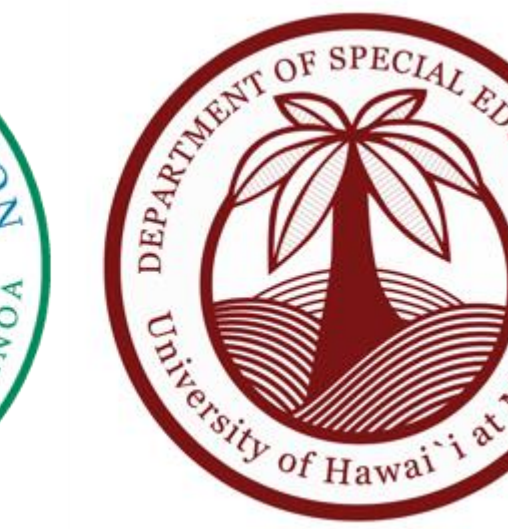
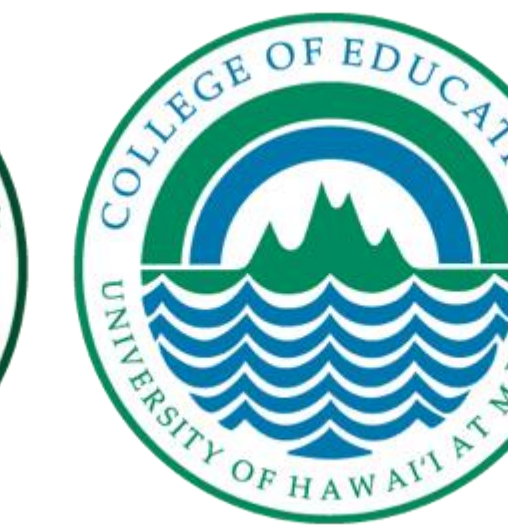
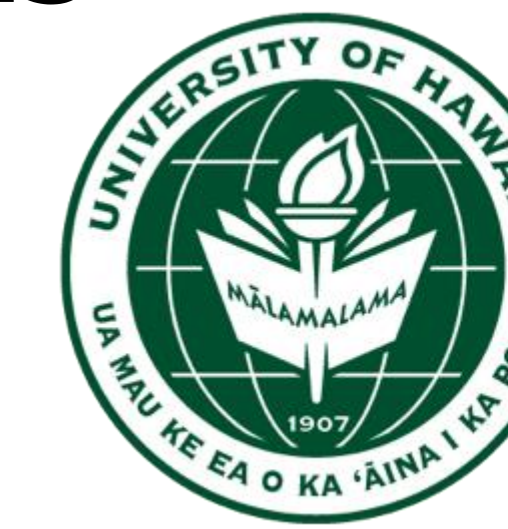


Video Modeling Vs. Video Modeling Plus Visuals on the Acquisition of Daily Living Skills for a 12-Year-Old Girl with Autism and Developmental Delays: A Component Analysis

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INTRODUCTION

Daily living skills (DLS) can be complex sequences for children with Autism Spectrum Disorder (ASD) to acquire, yet greatly increase an individual's ability to be independent. Video modeling (VM) is the use of an instructional video to facilitate skill acquisition. The purpose of this study was to investigate the effects of video modeling alone versus video modeling plus visuals on the acquisition of independence in daily living skills tasks for a middle school child with autism and developmental disabilities.

PARTICIPANT & SETTING

A 12-year-old girl with ASD and developmental disabilities participated in this study. She was non-vocal-verbal and had limited use of Picture Exchange Communication System (PECS) and adapted American Sign Language (ASL) signs. English was non-native language for the family. The participant had significant needs in DLS, having mastered only 4 of 37 dressing skills, 7 of 34 grooming skills, and 3 of 13 bathing skills in the Assessment of Functional Living Skills (AFLS) Basic Living Skills Module. Sessions were conducted in the participant's home, where she lived with her parents, an aunt, and 3 siblings.

DISCUSSION

In the 5th week of the study, two modifications were made. The tooth brushing video was shortened to provide greater focus on steps from brushing teeth through rinsing mouth as the participant had mastered previous steps. Additionally, an imitation component was added to aid the dressing routine. The participant previously had success when a discrete trial training (DTT) imitation program was added to target particularly difficult steps in behavior chains. Two steps of the dressing task analysis that the participant was struggling to acquire were targeted for imitation during participant's regular DTT program session to provide greater practice opportunities and to speed acquisition.

METHODS

Video models were created using the lead researcher as model and filmed with a GoPro camera, shot at wide angle to show the model performing the targeted task from initiation to completion. During implementation, the participant watched the video prior to performing the target skill. In the VM alone treatment, the participant received least-to-most prompting using the following prompt hierarchy: verbal, gesture to object or part of body, model, partial physical, and full physical. In the VM plus visuals condition, the participant was shown still photos of each step of the task as she performed the task and received least-to-most prompting using a hierarchy of gesture to photograph, verbal plus gesture to photograph, model, partial physical, and full physical.

A task analysis based on the participant's routine was used to collect baseline and treatment data. Level of prompting data were collected for each step of the routine to calculate percent of independent steps. A rating system was constructed in which the level of prompt the participant needed to complete the step was given a numerical score from zero to five. By adding up the total number of points an independence score was obtained each session. Thus, full independence for brushing teeth, which had 25 steps was a score of 125; for dressing with 23 steps was 115; and for washing hair with 21 steps was 105.

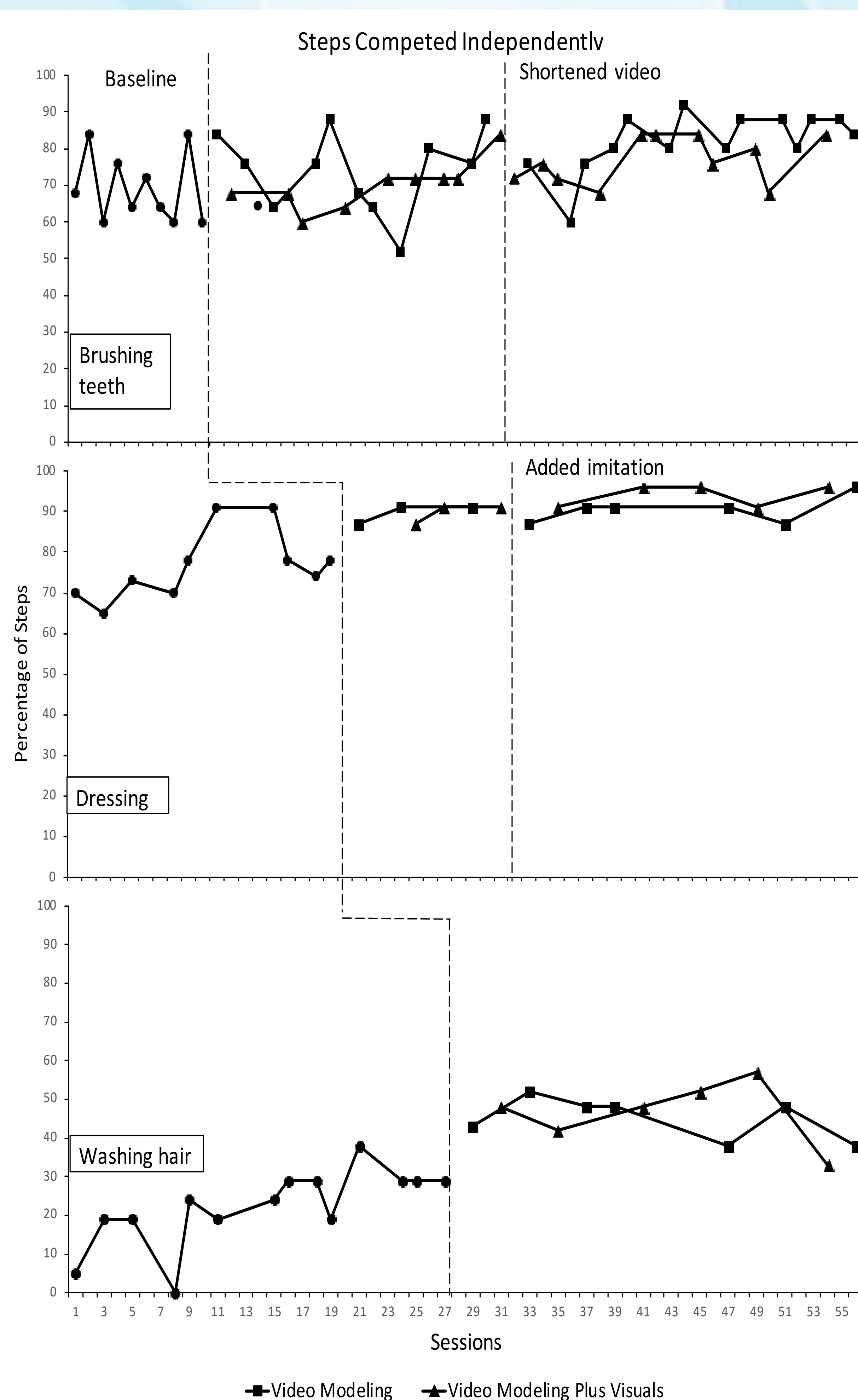


Figure 1. Percentage of steps completed independently for three DLS tasks during baseline and alternating treatment phases.

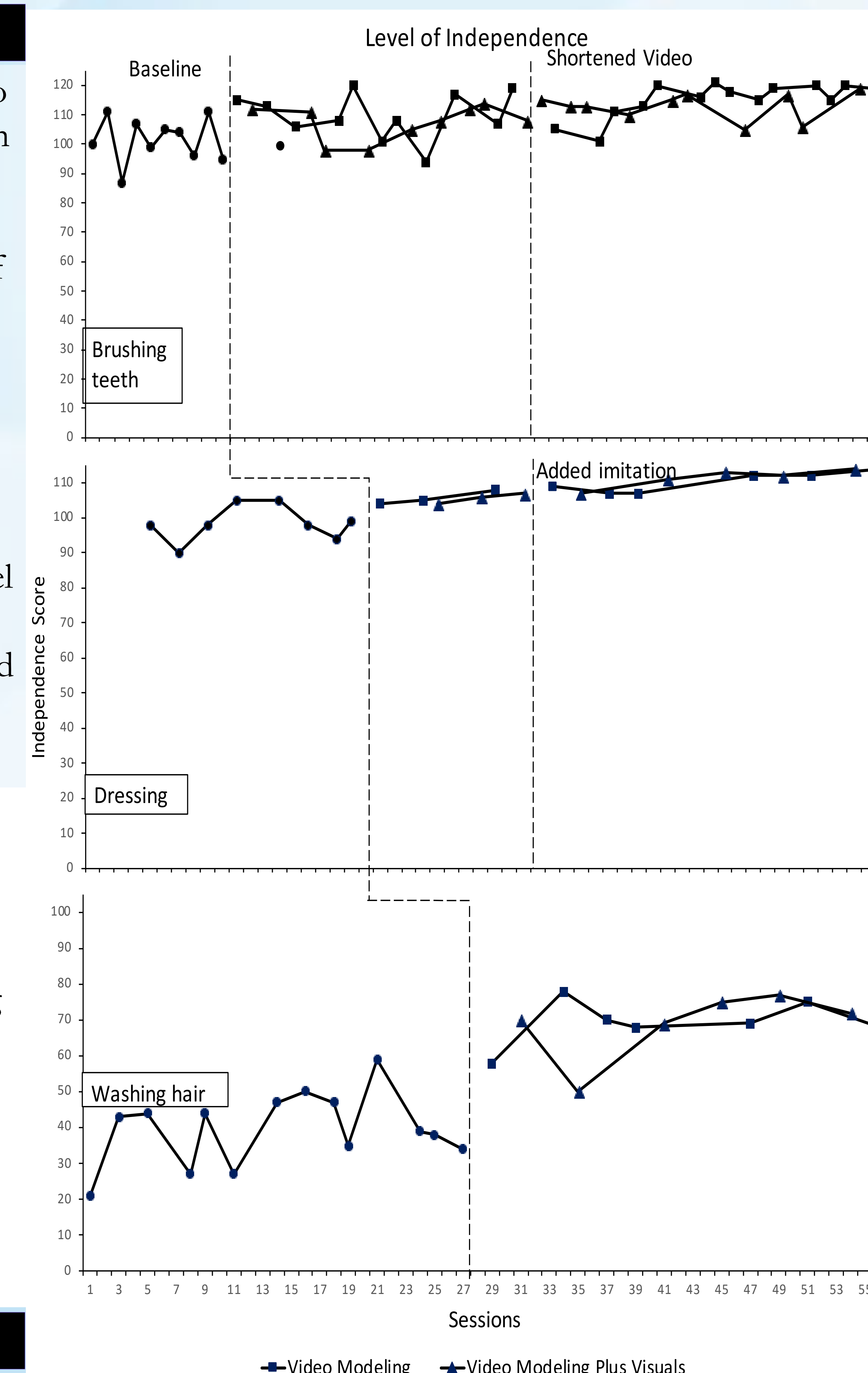


Figure 2. Independence score for three DLS tasks during baseline and alternating treatments phases.

Skill	Average Steps Completed Independently		Highest Independence Score		
	Baseline	Average	Baseline	Video Modeling Alone	Video Modeling Plus
Brushing teeth	69%	79%	111	121	119
Dressing	77%	90%	105	114	114
Washing hair	22%	45%	59	78	77

RESULTS

Data from all phases shows variability and overlap, however, it appears that VM was effective in increasing both number of steps completed independently and independence score for all 3 skills. It does not appear that use of visuals provided any great benefit over VM alone. For this participant VM provided instruction without the reliance on English language and also decreased reliance on physical prompts, which she sometimes found aversive.

Please Send Questions or Comments to Carrie Miranda, Miranda.carrie.78@gmail.com