The Use of Video-Based Instruction to Teach Life Skills to Individuals with Developmental Disabilities

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The Use of Video-Based Instruction to Teach Life Skills
to Individuals with Developmental Disabilities

Kori Paige Esplin

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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ABSTRACT

The Use of Video-Based Instruction to Teach Life Skills to Individuals with Developmental Disabilities

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Master of Science

Individuals with developmental disabilities struggle to learn important life skills. This deficit impedes their ability to function in the community and live meaningful lives. Video prompting (VP) is an evidence-based practice that has been used to teach a wide variety of skills to individuals with disabilities. VP utilizes technology to create step-by-step videos to teach academic, social, vocational and other life skills. This article extends the current literature on VP interventions to hygiene skills and investigates the efficacy, skill maintenance, social validity, and level of independence that can be achieved using VP to teach hygiene skills. Three participants with developmental disabilities were selected from a junior high school and were given a video prompting intervention on an iPad to improve hygiene skills. Hygiene skills that were taught included teeth brushing, teeth flossing, face washing and basic eye makeup application. All three participants reached and maintained mastery in each of their target skills. Social validity data indicated that using iPad delivered VP interventions was socially acceptable for teaching some hygiene skills. Not every participant was able to access the VP intervention completely independently. VP interventions are a viable option for teaching these crucial life skills to individuals with developmental disabilities.

Keywords: video prompting, developmental disabilities, life skills, hygiene, task analysis, iPads
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DESCRIPTION OF THESIS STRUCTURE AND CONTENT

This thesis, *The Use of Video-Based Instruction to Teach Life Skills to Individuals with Developmental Disabilities*, is written in a hybrid format. This format combines both traditional thesis requirements and journal publication formatting. The preliminary pages of the thesis reflect requirements for submission to the university. The thesis report is presented as a journal article and conforms to length and style requirements for submitting research reports to education journals.

Figures and tables intended to be included in the journal article can be found on pages 39–44. Appendix A contains the complete review of literature, with a shortened, journal ready version available in the article. Appendix B contains data collection sheets used in the research. The video scripts used in the intervention are included in Appendix C. Appendix D includes the letter of approval from the IRB at BYU and IRB approved consent and assent forms are included in Appendix E. Additionally, the IRB-approved parent survey is included in Appendix F. Appendix G presents the social validity surveys and Appendix H presents the recruitment materials used in the study. Finally, Appendix I includes the video release forms and Appendix J includes the treatment fidelity checklist.

This thesis format contains two reference lists. The first reference list contains references included in the journal-ready article. The second list includes all citations used in Appendix A following the literature review.
Introduction

The field of special education dedicates itself to designing and implementing interventions to improve the outcomes of individuals with disabilities, including those with developmental disabilities. A developmental disability is defined as a long-term disability that affects physical functioning, cognitive functioning or both that results in limitations in two or more of the following areas: (a) self-care, (b) receptive and expressive language, (c) learning (d) mobility (e) self-direction (f) capacity for independent living, (e) economic self-sufficiency. Developmental disabilities are present before the age of 22 and are life-long (Wehmeyer, 2017). Most developmental disabilities are moderate to severe in nature. The most recent studies conducted by the Center for Disease Control and Prevention estimate that one in every six, or about 15%, of children age 3 through 17 have one or more developmental disabilities (Zablotsky et al., 2019). The prevalence of developmental disabilities demands that schools, communities, and organizations are prepared to support these individuals with their unique needs.

Due to the limitations of individuals with developmental disabilities, they frequently struggle to learn life skills that others learn easily as children, including personal care skills (Piccin, Crippa, Nobile, Hardan, & Brambilla, 2017). Individuals with developmental disabilities often do not understand the social importance of smelling and looking nice and enter their adolescence and even adulthood with limited skills to take care of their basic hygienic needs. This can negatively affect their health, their social acceptance, and relationships at school, work and throughout their community (Wehman et al., 2018). It is estimated that only 17% of individuals with developmental disabilities live independently (Seals, 2016), and the employment rate for people with developmental disabilities in 2016 was 25.5%, compared to 76% of non-disabled people (Kraus, Lauer, Coleman, & Houtenville, 2018). As these
individuals grow and move into adolescence and adulthood, if their level of independence with daily living skills including personal care remains low, it can take a great toll on their parents and family members and limit their ability to live independently (Flynn & Healy, 2012).

Learning and mastering personal care skills is crucial for people with developmental disabilities to be independent and successful members of the community that enjoy a high quality of life (Francis, Blue-Banning, & Turnbull, 2014; Houtenville & Daly, 2003; White & Dodder, 2000). Individuals with developmental disabilities that have higher levels of personal care skills engage in more social interactions, are in contact with their families more often, receive fewer hours of habilitation, are engaged more in community outings, spend more hours working and are less likely to live in institutional settings (White & Dodder, 2000). Personal independence and using these skills are also essential for individuals with disabilities to gain and be successful in employment opportunities (Houtenville & Daly, 2003). Without sufficient personal care skills, individuals with disabilities experience lower levels of community interactions, fewer opportunities for meaningful employment, higher dependence on caregivers and an overall lower quality of life (White & Dodder, 2000).

Individuals with developmental disabilities can benefit from direct instruction and training in life skills to successfully live on their own, care for themselves, hold jobs, and lead lives filled with social and leisure activities (Gilson, Carter, Bumble, & McMillan, 2018). Research-based specialized instruction is crucial in the development and skill acquisition of individuals with developmental disabilities (Piccin et al., 2017; Wehmeyer, 2017). There is a substantial need for additional research to find effective interventions to teach individuals with developmental disabilities daily living skills. Video prompting is one evidence-based practice that has been proven to be effective in teaching life skills to individuals with developmental
disabilities (Gardner & Wolfe, 2014; Johnson, Blood, Freeman, & Simmons, 2013; Mechling & Moser, 2010; Piccin et al., 2017; Van Laarhoven, Zurita, Johnson, Grider, & Grider, 2009).

**Video Prompting**

Video prompting (VP) is an evidence-based practice used to teach an array of skills to individuals with developmental disabilities such as home-care skills, academic skills, vocational skills and other practical skills (Banda, Dogoe, & Matuszny, 2011). Video prompting is an instructional method that falls under the category of video modeling, which uses video recordings and visual representations to teach a targeted skill. In contrast to traditional video modeling, in video prompting, the steps of the skill are broken down into discrete steps. For each step, there is a video model of someone doing the task and then a prompt and a pause in the video for the participant to complete that task before moving on to watch a model of the next step (Mechling, 2011). If a viewer of the video prompting feels they need to repeat the video or if they perform the step incorrectly, they can watch the prompt again and reattempt the step before moving on to the next step and prompt. This repetitive, easily accessible intervention allows for thorough practice and skill acquisition. While the core definition of video prompting remains constant, there have multiple filming strategies used in creating video prompting interventions that have been proven to be effective.

**Perspective types.** There are two different types of perspectives that are used when filming video prompting, which are point-of-view modeling and basic scene modeling (Murray & Noland, 2012). Point-of-view modeling is defined as video modeling recorded from the perspective of what the learner would see (Gardner & Wolfe, 2014). Basic scene modeling is recording someone performing the task from an observer’s perspective rather than the learner (Cotter, 2010; Murray & Noland, 2012). There is no clear trend as to which perspective is most
effective, however, both have been found to be effective uses of video prompting to increase skill acquisition in individuals with disabilities (Van Laarhoven et al., 2009).

Model types. The question of who should be featured in a video made for the purpose of video prompting has been assessed by many researchers (Bellini & Akullian, 2007; Cotter, 2010; Gardner & Wolfe, 2014; Jones & Schwartz, 2004; Mason, Ganz, Parker, Berke, & Camargo, 2012; Melching & Moser, 2010; Murray & Noland, 2012; Van Laarhoven et al., 2009). The most commonly used and researched video models include self, peers, and adults. Self-models are defined as the child who is watching the video, a peer model is defined as a same-aged familiar peer of the child and an adult is an adult who is familiar to the child. All three models (self, peers, and adults), can be used in point-of-view and basic scene modeling.

Despite the many different types of models, there is no strong evidence showing one type to be most effective. In a study about the preference of video model of adolescents with developmental disabilities, it was found that there are no strong patterns of preference (Melching & Moser, 2010). As far as which model is most effective, literature shows inconsistent patterns but shows that all three models have proven to be effective in skill acquisition with video prompting (Jones & Schwartz, 2004). Both self-modeling and video prompting with peer models using point of view and basic scene modeling have been recognized as evidence-based practices (Bellini & Akullian, 2007; Mason et al., 2012; Murray & Noland, 2012). The question of which type of model and perspective is the most effective is still unclear as there have been no strong trends, though all types have been shown to be effective at teaching skills to individuals with developmental disabilities (Van Laarhoven et al., 2009).

Despite the technical format of a VP intervention, video prompting can be used to teach skills by utilizing technology that can be available to individuals whenever they need it. As with
many other skills, the ultimate goal is for individuals with developmental disabilities to be able to do as many skills as independently as possible. Video prompting is ideal for this goal as it allows for individuals to learn and perform tasks as independently as possible and allows them to maintain the skill more independently as they can turn to a video, rather than needing a person to prompt them through the skill. (Cihak, Kessler, & Alberto, 2007) This makes video prompting an ideal intervention for use of individuals who have a need to increase their independence and rely less on caretakers and teachers (Van Laarhoven & Van Laarhoven-Myers, 2006). While many studies have noted that video prompting may increase independence, none have quantitatively measured the level of independence that can be achieved with video prompting. Despite the level of independence achieved, video prompting has been cited to increase skill proficiencies across a wide range of tasks.

**Applications of video prompting.** The applications of video prompting are broad. Video prompting has been shown to be an effective intervention for academic, vocational, social, and daily living skills (Bereznak, Ayres, Mechling, & Alexander, 2012; Cannella-Malone et al., 2015, Sigafoos et al., 2005, Van Laarhoven et al., 2009; Van Laarhoven & Van Laarhoven-Myers, 2006). A primary focus of research on daily living skills taught with VP has focused on cooking, cleaning and other house-keeping skills.

A meta-analysis was conducted by Piccin et al. (2017). They focused on the use of video prompting to teach hygiene skills to children and adolescents with developmental disabilities. They found that video prompting is an effective strategy to teach tasks including washing hands, brushing teeth, and toileting skills.

Cihak et al. (2007) created video prompting videos for tasks that three participants with developmental disabilities performed at their jobs at a grocery store. At the beginning of the
intervention, the participants were trained to use the video prompting system to teach them skills they used every day at work. At the beginning of the intervention, participants needed a lot of support to use the videos to learn skills, doing it independently only 19% of the time. Over time, the participants would turn to the videos to learn skills and were able to do this independently 74% of the time and maintained the skills the videos taught for nine weeks after the intervention that the researchers observed (Cihak et al., 2007). Video prompting often takes instruction or practice for the user to learn how to use, but once accustomed, users can navigate it easily to self-manage their learning and perform a task independently (Le Grice & Blampied, 1994).

One study that used video prompting to teach life skills to individuals with developmental disabilities was conducted by Johnson et al. (2013). They used a multiple-probe-across-behaviors design to evaluate the effectiveness of video prompting in teaching food preparation skills to teenagers with developmental disabilities. They delivered the video prompting instruction on an iPod Touch to teach skills including making pizza, mac and cheese, and pizza. The results showed that the intervention was highly effective at increasing the independent performance of these important life skills (Johnson et al., 2013).

An additional study addressing another important life skill, washing dishes, was conducted by Gardner and Wolfe with varying individuals with developmental disabilities. They used video prompting to teach how to wash dishes and all of the participants showed rapid skill acquisition. Each of the five participants mastered the skill with 90% accuracy or higher after four or fewer sessions in intervention. The researchers followed up with the participants two weeks after the intervention for skill maintenance and found that all of the participants retained the skill at mastery level of 80% or higher (Gardner & Wolfe, 2014).
Of the research reviewed, life skills that were addressed included cooking-related skills, (Bereznak et al., 2012; Van Laarhoven et al., 2009; Van Laarhoven & Van Laarhoven-Myers, 2006), putting away groceries (Cannella-Malone et al., 2015), washing dishes (Cannella-Malone et al., 2015; Sigafos et al., 2007), washing and drying laundry (Bereznak et al., 2012; Cannella-Malone et al., 2015), folding laundry (Van Laarhoven et al., 2009; Van Laarhoven & Van Laarhoven-Myers, 2006), cleaning a table (Cannella-Malone et al., 2015; Van Laarhoven & Van Laarhoven-Myers, 2006), shoe-tying (Rayner, 2011), and sweeping (Cannella-Malone et al., 2015; Domire & Wolfe, 2014). All of these skills were taught successfully with video prompting, demonstrating the efficacy of the intervention for these life skills. While there is a growing body of research on the use of video prompting to teach life skills, there are still several life skills to be thoroughly researched with video prompting, including hygiene and personal care skills.

**Technology**

The use of technology is an integral piece of video prompting. Technological devices such as iPads, iPhones, iPods, and similar phones and tablets are common mediums for video prompting. The use of these devices has been reported to be effective and socially valid to use in instruction with individuals with disabilities because “they are portable, relatively inexpensive, and used frequently among individuals without disabilities, which potentially makes their use socially acceptable and reinforcing” (Blood, Johnson, Ridenour, Simmons, & Crouch, 2011, p. 301).

**Social Validity**

The teaching and maintenance of daily living skills has been shown to be of high importance to the parents and families of individuals with developmental disabilities. The
burden placed on families to take care of the personal care needs of a family member with a developmental disability can be overwhelming (Flynn & Healy, 2012). The need to improve the independence level of these individuals is crucial in improving their lives and the lives of their families.

The use of technology in education has been shown to be of high value. In a survey of parents regarding the use of technology in teaching students, 82% of parents felt it very important for schools to “make good use of technology in educating students” and 68% felt technology is important in accommodating students with disabilities and diverse learning needs. Additionally, 70% of households with children have a tablet in the home and nearly 92% of all households have a computer (Biddle, 2013). Using technology like a tablet with or computer to access video prompting is a viable and option for families.

In previous video prompting research, participants and their families have reacted positively to the use of technologies such as iPads, iPods, iPhones, computers and other mobile devices to learn skills. Individuals with developmental disabilities have indicated that they enjoy and were interested in using these technologies to learn skills and that the videos were helpful. Likewise, parents have reported the use of these technologies as socially acceptable in multiple settings, helpful across home, school, vocational and clinical settings, and that they are desirable for their children and young adults to use (Melching & Moser, 2010; Murray & Noland, 2012; Van Laarhoven & Van Laarhoven-Myers, 2006).

**Purpose of the Study**

The purpose of the study is to extend the research on video prompting and teaching functional skills to individuals with developmental disabilities. The study will extend the current literature on the efficacy of video prompting by focusing on developmental disabilities and
hygiene skills. The study examines the effectiveness of a VP intervention on increasing hygiene skills, the level of independence at which individuals with developmental disabilities can utilize the intervention and the social validity of the intervention.

**Research Questions**

1. What is the effect of using video prompting to teach hygiene skills to individuals with developmental disabilities?
2. Can individuals with developmental disabilities utilize video prompting interventions independently?
3. Can individuals with disabilities maintain skills learned from a video prompting intervention over time?
4. To what extent is video prompting to teach hygiene skills a socially valid procedure from the perspective of parents and individuals with developmental disabilities?

**Method**

**Interventionists and Participants**

**Interventionists.** The primary interventionist was a special education teacher of the three participants. This teacher was a 23-year-old white female who was a certified special education teacher with an endorsement in severe disabilities. The second interventionist who was primarily responsible for interobserver data collection was another special education teacher of the participants. She was a 44-year-old white female who was also certified as special education teacher with an endorsement in severe disabilities. Both of these interventionists taught a separate self-contained special education class in a junior high and were graduate students in a special education program.
Three participants with moderate to severe developmental disabilities were selected from a suburban junior high in the intermountain west. All of the participants received instruction in a self-contained special education class and participated in regular life skills instruction. Participants were selected by their need to improve personal hygiene skills. Need to learn hygiene skills was identified by a parent survey and by teacher observation. Additional information including their adaptive scores, personal care adaptive sub scores, and present skill levels were obtained from their special education file and factored into the decision to include them as participants in the study. The three participants chosen were Morgan, Oscar, and Grace. Pseudonyms have been used to protect the privacy of the participants.

**Morgan.** Morgan was a 12-year-old female of multiple races that had an intellectual disability and several documented developmental delays. According to the Wechsler Intelligence Scale for Children, Fourth Edition, (WISC-IV), Morgan’s IQ was 56. Morgan’s overall adaptive score as rated by the Vineland Adaptive Behavior Scales (Vineland-II) was 70, and her personal care skills sub score was 68, in the 2nd percentile. Morgan communicated verbally in full sentences and had no significant problem behavior.

**Grace.** Grace was a 13-year old Hispanic female diagnosed with autism spectrum disorder by an outside evaluator using the Autism Diagnostic Observation Schedule (ADOS). Grace’s overall adaptive score as evaluated by the Vineland Adaptive Behavior Scales (Vineland-II) was 65, and her personal care skills sub score was also 65, both in the 1st percentile. Grace’s IQ score was 67 as measured by the Universal Nonverbal Intelligence Test (UNIT). She communicated frequently in sentences but echolalia interfered severely with her ability to communicate clearly and engage in traditional instruction.
**Oscar.** Oscar was a 12-year-old Hispanic male that had been diagnosed with autism spectrum disorder and an intellectual disability. The school had administered the Gilliam Autism Rating Scale (GARS-2nd ed.), and Oscar’s Autism Index score was 85, with a high probability of Autism, and Oscar had been diagnosed with Autism by a private practitioner using the Autism Diagnostic Observation Schedule, Second Edition (ADOS-2). Oscar’s IQ score was 76 as measured by the Universal Nonverbal Intelligence Test (UNIT). According to the Vineland Adaptive Behavior Scales (Vineland-II), Oscar’s overall adaptive score was 60, in the <1st percentile, and his personal care sub score was also 60 and in the <1st percentile. Oscar engaged in severe antisocial behavior, often did not respond to adult or peer interaction or instruction, and communicated only in one- or two-word phrases. Table 1 provides additional demographic information for each participant.

<Insert Table 1 here>

Prior to the intervention, flyers and information were sent home to parents of potential participants in the self-contained special education class. Parents of potential participants who indicated interest in the research were asked to fill out a survey to assess their child’s current skill levels to help researchers verify their eligibility to participate. Parents gave their consent to participate in this survey as a part of the research. Parent materials including flyers, consent forms, and surveys were available in Spanish for those who spoke Spanish as their first language. In addition to the parent survey, researchers assessed each possible target skill to obtain their current level of performance. Parents were given a list of skills and asked to rate their child on a scale ranging from “cannot or will not do this” to “independently without reminders” and a free-response portion to record other daily living concerns they had for their child. Table 2 provides their responses.
Once participants were identified, parental consent was obtained for each participant. Assent was also obtained from each participant. The assent form was read to participants and they had the opportunity to ask questions and grant or deny their assent at the beginning of the study. It was also made clear that they had the choice to withdraw from the research at any time without negative implications.

**Setting**

Research took place in a middle school self-contained life skills classroom. The classroom had one teacher, two paraeducators, and 12 students. Prior to beginning research, approval from the Institutional Review Board for Human Subjects at Brigham Young University and the participating school district was obtained. Research was conducted during the life and social skills class that was taught every other day and the social skills intervention time daily. The intervention was a part of the life skills hygiene curriculum and all students receiving life skills instruction received it. Student participation in the research allowed researchers to use data and record sessions to use in research. Participation in the study did not detract from scheduled coursework.

Baseline sessions and intervention took place in the nurse’s restroom in the main office of the school, which was located across the hall from the participants’ classroom. The restroom was one room with one toilet, a sink, and a mirror. The nurse’s restroom was in a private area of the office where the participants could receive the intervention without interruption from peers or other distractions. Participants and other class members were taken out of the classroom and to the office individually to participate in sessions during the life skills class and social skills work time. The restroom door was left open during all sessions to protect both the participant and the
researcher. Office and other school staff were present in the office during the intervention but did not interfere with the intervention.

**Target Skills and Videos**

Target skills were selected based on parent feedback of participant needs and baseline data. Each potential participant was probed using baseline data collection procedures for three or more of the following skills: brushing teeth, flossing teeth, washing face, applying deodorant and applying basic eye makeup (for female participants). If a participant was proficient or near proficient in one of the skills, they were assessed in more than three tasks to find three skills they had deficits in. Three tasks were selected for each participant based on which three tasks the participant scored the lowest in the initial baseline. Table 3 provides the tasks selected for each participant.

<Insert Table 3 here>

Each skill was task analyzed, as that is a key component of teaching skills using video prompting (Cannella-Malone et al., 2015; Murray & Noland, 2012). Task analyses were used for the creation of the intervention as well as data collection and scoring. The eye makeup and teeth brushing tasks included 25 steps. Face washing included 24 steps. Teeth flossing required 60-80 steps, depending on how many teeth the participant had. Teeth flossing included more steps because 3 steps were required to floss between each set of teeth in the mouth.

A video for each task was completed based on the task analysis. The script for each video was written based on the task analysis. The skills were presented step by step in the intervention videos. The tasks were grouped into groups that could be reasonably done together, such as turning on the faucet and rinsing the toothbrush, and these groups were made into shorter videos that would be put together and used to teach the skill in intervention.
Materials

In baseline and intervention, participants were given the materials necessary to perform the target skill. For teeth brushing, participants were given a toothbrush and toothpaste and placed in front of the sink. In the flossing task, a bag of single-use floss picks was provided and the participant was placed in front of the sink. For face washing, a washcloth, towel, bottle of facewash with a flip-open cap and a hair tie (for participants with long hair) were provided at the sink. A tube of mascara, an eyeliner crayon, a basic eyeshadow pallet, and a single-use eyeshadow brush were provided in front of the mirror for the makeup application task. The materials provided were identical to materials shown in the videos.

Videos were shown to the participants on 2 64 GB iPad mini 4s. The mobile application “Task Analysis” version 2.1.0, created by the Clemson Life program at Clemson University for the purpose of video modeling and video prompting for individuals with disabilities, was used to record and view videos on the iPad. “Task Analysis” was available for free through the Apple Store and was available only for Apple products. The program iMovie, version 2.2.7, created by Apple, was used to edit the videos before they were uploaded to the Task Analysis application. Promoting videos were made by the researcher featuring a same-aged student in the participant’s class as the model using basic scene modeling. A 128 GB iPhone 7 was used to film each session, edit the videos and upload them to the Task Analysis application. Task Analysis videos were transferred from the iPhone to the iPads by the video-sharing feature of the Task Analysis application where a unique code is generated and used to download the video onto another device. Hard copy data collection forms were used to collect hard copy data and an online storage platform, BYU Box, was used to store research data and videos. Hard copy data,
intervention videos and recordings of the participant sessions were transferred to the BYU Box platform for secure storage.

**Measures**

The study measured the accuracy of which each participant completed the steps of their designated skill based on the task analysis for each skill. This measure was designed to show the effect of the intervention on the participants’ ability to perform the skill. Each session was recorded and then played back for data collection. Observers used a checklist that defined each step of the task analysis to record data and calculate the percentage of steps completed accurately. The formula that was used to calculate the percent accuracy was: number of steps completed correctly/number of steps total. The mastery criterion for each skill was set at 80% of steps completed accurately or better.

Observers also measured the number of prompts that were needed for the participant to use the video prompting technology during the intervention in order to understand their level of independence in using the intervention. Prompts were defined as any verbal, physical or gestural prompts that were delivered to the participant to facilitate them using the technology to watch the video. Least to most intrusive prompting procedures were used to deliver the prompts. Prompts were only delivered to use the technology when the participant asked for help or did not respond during the intervention. Prompts were never used to help the student complete the task, only to access the technology that taught them how to do the task.

Skill maintenance was measured by recording the accuracy that each participant performed the skills using the same formula and method as in the intervention phase. Two weeks after the end of the intervention, the participants were presented with the skill again without access to the intervention on the iPad and asked to do the task. The same skill checklists
from intervention were used to calculate the percent accuracy at which the participant performed the skill after two weeks without exposure to the intervention. No prompts to use technology were measured because the participants did not have access to the iPad during this phase.

Social validity data was also measured with a social validity survey for participants and their parents. The social validity survey aimed to measure how the participants and their parents felt about the intervention, their level of comfort with the intervention and their interest in potentially using the intervention in the future. The social validity survey was administered at the conclusion of the maintenance phase.

**Research Design**

This study used a multiple baseline across behaviors design to show the effects of the intervention, similar to related studies that have met the Council for Exceptional Children and What Works Clearinghouse quality indicators of single-subject research in special education (Banda et al., 2011; Bereznak et al., 2012; Council for Exceptional Children, 2014). The design allowed each skill to be introduced independently from each other. Each participant began each skill in a baseline phase, and each skill intervention was introduced one at a time. Multiple baselines were used to show that each skill was taught in isolation and the acquisition of one skill did not affect the acquisition of another. Baseline data was taken until three to five stable data points were collected for each skill. Once the participant reached mastery (80% or better) at one target skill for three or more trials, the next skill was introduced.

**Data Collection Procedure**

**Baseline.** The study had one baseline and one intervention phase for each behavior because of the irreversible nature of learning the skills. The skill that had the lowest initial baseline data was chosen for intervention first. Each participant stayed in baseline for each
behavior until they have been in baseline for the previous behavior for at least five sessions. Baseline data was collected for each participant by giving them the materials necessary to complete the task, asking them to do the task and recording the percent accuracy to which they performed the task. No prompts or interventions were delivered in baseline other than asking them to do the task. Participants stayed in baseline for three to five sessions to show a stable trend in their performance.

**Pre-intervention training.** Prior to intervention, participants were given instructions on how to use and navigate the video prompting app on the iPad. Participants received explicit training on how to use the mobile application with a video that taught them how to sharpen a pencil. Once they showed a stable pattern of being able to use the video technology by independently opening, starting, navigating and watching the video with 90% accuracy, the participants began intervention. Morgan took two trials to reach mastery (90%), Grace took five trials, and Oscar took three trials to reach mastery and move on to the intervention phase. Prior to intervention, researchers contacted the parents/guardians of each participant and informed them of the skills that their child will be learning in the study. Researchers asked that parents did not talk about or practice the target skills at home to increase experimental control.

**Intervention.** The intervention was the video prompting videos delivered on the iPad. Similar to other effective video prompting interventions, the intervention utilized a mobile device to deliver video instruction that could be viewed by a participant multiple times (Bereznak et al., 2012; Sigafos et al., 2005). The intervention was broken into several videos that included several steps of the task analysis that could be logically grouped together. In the videos, peer models were shown completing the tasks using basic scene modeling. Peer models were same-aged peers of both, some who were members of the self-contained special education
class and others who were typically developing. Both male and female peers were used in the videos. An adult voiceover reading the directions that was added to each video using iMovie. A short video clip would play teaching one section of the skill, and then the video would stop to allow the participant time to complete that part of the skills. Once the participant was ready, they could start the next video to watch and complete the next tasks. The teeth brushing videos were a total of 1 minute and 50 seconds in length and included 5 videos, the eye makeup videos were 2 minutes and 15 seconds made up of 5 videos, the teeth flossing videos were 4 videos that totaled 1 minute and 54 seconds, and the face washing videos were 6 videos that totaled 2 minutes and 32 seconds in length.

In intervention, participants were given the materials required to do the skill and given an iPad with the Task Analysis application on it. The researcher began the session by giving the materials to the participant and instructing them to use the video to complete the task, for example, “use the video on the iPad to brush your teeth.” The participants watched the videos on the iPad and attempted to complete it as instructed. The researcher did not give prompts or intervene to help the student complete the task. No error correction or reinforcement procedures were used.

If a problem behavior occurred during the session that interfered with the participant’s ability to complete the session, the session was ended and data was not recorded for that session. This only occurred two times during the baseline phase. Otherwise, the session was continued until the participant completed watching the video and preforming the task or indicated they were finished.

If the participant failed to use the iPad or asked for help either with the task or the iPad during the session, the researcher delivered a prompt to use the iPad. Least to most prompting
procedures were used to provide these prompts. Prompts began with a partial verbal prompt and moved to a full verbal prompt, gestural prompt, and a physical prompt, respectively, as the participant needed. The next most intrusive prompt was only delivered if the participant failed to use the iPad or asked a question. Each prompt was recorded and a total number of prompts was recorded on the data sheet.

Each session was filmed by the researcher using an iPhone 7 and data was recorded after the session. Data sheets were used to record the percentage of steps completed accurately and the number of prompts delivered during the session. Interobserver agreement data (IOA) was recorded by the second data collector for both the accuracy of the task and the prompts used to using to point to point IOA formula, which is: \[
[(\text{number of intervals of agreement} / \text{number of intervals agreed} + \text{number of intervals disagreed}) \times 100].
\]
For Morgan, IOA was collected for 87% of baseline sessions, 82% of intervention sessions, and 86% of maintenance sessions. The point to point IOA across all three phases for Morgan was 96%. IOA for Grace was collected for 93% of baseline sessions, 97% of intervention sessions, and 80% of maintenance sessions. The point to point IOA across all three phases for Grace was 95%. Additionally, for Oscar, IOA was collected for 88% of baseline sessions, 90% of intervention sessions and 86% of maintenance sessions. The point to point IOA across all three phases for Oscar was 94%.

**Maintenance.** Skill maintenance was measured by following up with participants two weeks after the last intervention date for each skill. Researchers gave the participant the materials needed to perform the skill and asked the participant to perform each skill without the video prompting intervention and no access to the iPad. Skills were presented in the same order as they were in intervention. Like in intervention, the accuracy of their performance based on the task analysis of the skill was recorded in order to measure the maintenance of the skills over
time without access to the intervention. Because the participants were not using the VP intervention on the iPad to complete the skill in the maintenance phase, no prompts to use technology were recorded and no correction or reinforcement procedures were used.

**Treatment fidelity.** To ensure treatment fidelity, the materials were set up in the same way each time and materials identical or similar to those used in the video were used for each session. The researcher followed the same procedure during each session. A treatment fidelity checklist adapted from another video prompting study was completed by the researcher to evaluate the implementation of the treatment (Kellems & Morningstar, 2012). All items relevant to the study were checked as “yes” when evaluated.

**Results**

The criteria for mastery for each skill was set at 80% of the steps completed accurately. Figures 1, 2, and 3 present the percentage of steps performed accurately for each target skill for each participant. Each figure also includes the number of prompts to use the technology that were required for each participant to use the video prompting on the iPad.

<Insert Figure 1 here>

<Insert Figure 2 here>

<Insert Figure 3 here>

**Morgan**

Morgan reached mastery at all of her assigned target skills. By the end of the intervention, Morgan could independently use the video prompting technology and required little to no prompts to use it. She required 6 prompts when the intervention was first introduced but quickly decreased to 0 to 1 prompt per session. Morgan maintained a high level of accuracy both in intervention and maintenance phases, reaching between 92% and 100% accuracy for all skills
in both phases post-baseline. Visually analyzing the data, Morgan had very little variability in her performance for each skill. The level of performance increased significantly from baseline to intervention. For the task of flossing, the data showed a clear increasing trend and then stabilized at an average of 98% at the end of intervention and during the maintenance phase. The face washing and eye makeup skills both had a stable trend in both intervention and maintenance at 100% accuracy. For all three tasks, Morgan had a decreasing trend in the prompts she required to use the technology. She began at a high level of prompts at the beginning of the interventions, and then reached a stable trend of 0 prompts to by the end of the intervention.

Morgan engaged in no problem behavior during the baseline, intervention or maintenance phases. Morgan indicated in the social validity that she liked the intervention and would like to use it again. Morgan’s mother shared that she thought the videos were a positive and socially acceptable intervention for her to use.

Grace

Grace was able to reach mastery for all three of her target skills. Grace’s performance in face washing and flossing teeth improved significantly, from a level below 50% in baseline and above 90% in intervention and maintenance phases. Grace’s least improved skill was teeth brushing, averaging at 63% in baseline, however, she still reached and maintained skill mastery at 90% and above in intervention and maintenance with little variability, a significant change in level. All three of her skills showed an increasing trend that stabilized above mastery. Grace never reached a stable trend of needing 0 prompts, only having one session where she did not need a prompt to use the iPad. She also had the greatest variability in the number of prompts required to use technology. However, she did have an overall decreasing trend in the number of prompts she needed.
In Grace’s initial two baseline sessions, she engaged in problem behavior of screaming, throwing objects and eloping, so the two sessions were stopped and data was not recorded. Grace indicated that she liked watching the videos and that they helped her to improve in brushing and flossing her teeth. Grace’s mother shared that Grace engages in several problem behaviors at home when asked to perform hygiene tasks and that she felt the videos decreased the likelihood of that happening.

Oscar

Oscar also responded positively to the intervention, reaching mastery on every target skill. Like the other two participants, the level of accuracy increased significantly from a low level in baseline to a stable high level in intervention that had little variability. Oscar required the highest level of initial prompts to use technology, but then had a decreasing trend throughout the intervention. By the end of the intervention, Oscar’s level of prompts to use the iPad was low, having 6 sessions where he required 0 prompts. In intervention for face washing, Oscar reached 100% mastery but then regressed to 91% at the end of intervention and but then performed at a stable trend of 91% accuracy in maintenance. Though he required the most prompts and showed regression in face washing, Oscar reached and maintained mastery of each skill.

Oscar did not engage in any problem behavior that interfered with data collection in any of the phases. Oscar reported on the social validity survey that he liked using the videos and would like to watch them at home. His mother reported she thought it was a good teaching method for him to use.
Efficacy of the Intervention

All participants reached and maintained mastery (80% or better) for all target skills selected. Each participant began significantly below mastery for each skill in baseline. The video prompting intervention was effective at improving the performance of each individual at hygiene skills that they previously had deficits in. The data show a clear functional relationship between the accuracy of which the individuals could perform the skills and the VP intervention because of the significant change in level of performance before and after the intervention was introduced.

Level of Independence

The biggest difference between each participant was the level of independence they were able to access the intervention. This difference is seen in the number of prompts each participant required to use the iPad technology during their sessions. Morgan, for example, was able to reach a stable pattern of independence using the intervention, but Grace and Oscar did not. The data does show, however, that all three participants had a decreasing trend in the number of prompts they needed to use the technology, showing an increasing level of independence in accessing the intervention over time.

Skill Maintenance

In the maintenance phase, all three participants preformed at a high level that was at or above accuracy for all of their designated target skills. Morgan was between 98% and 100% for all of her skills, Grace preformed between 88% and 95% and Oscar performed between 80% and 100%. For Morgan, this level of performance was consistent with her performance at the end of intervention. Grace’s performance decreased by 10% for teeth flossing in the maintenance phase from intervention, but increased by 2% for teeth brushing. Oscar’s performance accuracy was
consistent for all skills from intervention to maintenance for every skill except for teeth brushing, in which his average performance dropped in level by 2%. Overall, all three participants were able to maintain mastery for their skills without the intervention. This shows that the participants learned the skills from the video prompting intervention and were able to maintain them over time, even without long-term access to the intervention.

**Social Validity**

At the conclusion of the data collection phases, a social validity survey was administered to participants and their parents. Parents filled out the surveys in writing and participants completed the survey by using written and/or verbal responses based on the abilities of the participants. Grace, Morgan, and Oscar all completed this survey and indicated that they liked watching the videos on the iPad. They all also indicated they would like to learn other skills using the video prompting technology.

The three parents of the participants that were surveyed all indicated that their child liked the intervention and that they were pleased with the results. All three parents mentioned that they felt the delivery of instruction on an iPad was more effective for their child because of their child’s preferences and/or learning style. Grace’s mother stated “We always are yelling and her to brush her teeth and it is hard. I think the iPad was better for her and she wouldn’t fight it as much.” Two parents indicated in the initial survey that their child’s lack of hygiene skills caused frustration in their home and then indicated that they felt the video prompting intervention may help to ease this in the social validity survey.
Discussion

Participant Response to Intervention

The results show a clear functional relationship between the video prompting intervention and the participants’ ability to perform the selected hygiene skills. All three participants made a significant change in the level at which they were performing the skills immediately after the intervention was introduced. Other variables such as outside instruction or exposure to the skill at home or at school were controlled for, and this reflects that the intervention had a direct effect on the rapid acquisition of the skills for all of the participants. After a two-week removal of the intervention, all three of the participants maintained high levels of accuracy in their skills without the intervention, showing the functional relationship of the intervention and the ability for the participants to learn and maintain these hygiene skills over time.

Each participant’s response to the intervention was slightly different due to their unique characteristics, however, all of the participants were able to use the intervention to reach mastery of the skill. For example, Morgan’s variability in performance was low because she performed the task almost exactly the same each session in both baseline and intervention. Once Morgan learned the steps and reached mastery, she was able to perform the skill almost the same way each time and needed less help from the intervention videos. Grace engaged in echolalic language in many of the sessions which interfered with how much of the video she was watching, which increased her variability at which she performed the skills. She relied heavily on the intervention videos throughout the intervention, however, her mastery of the skills increased and she was able to maintain mastery in the maintenance phase without the video intervention. She also needed less prompts to use the technology over time.
Oscar reached mastery in face washing at 100% in the beginning of the intervention, but then digressed and averaged 91% accuracy during the end of intervention and throughout the maintenance phase. While the reason for this is not clear, the researcher speculates it had to do with the attention Oscar paid to the videos. When he first watched the videos, he paid close attention because he was not confident in how to do the skill. As he felt more confident, he paid less attention to the details of each video and neglected a few steps. This became how he learned to do the skill and how he performed during the maintenance phase, keeping a steady trend of 91% in maintenance. Like the other two participants, Oscar needed less prompting to use the intervention as he learned the technology and skills, and so he paid less careful attention to the intervention as time went on. As each participant varied in their skill levels and abilities, their access to the intervention differed slightly, however, all three were successful in reaching mastery.

Similar to other studies that investigated the use of video prompting to teach life skills to individuals with disabilities, this study strengthens the evidence of the use of this practice to teach skills and maintain them over time. Similar to the study conducted by Gardner and Wolf (2014) that used video prompting to teach how to wash dishes, and all of the participants showed rapid skill acquisition, mastered and maintained the skill with 80% accuracy or higher. As each person varies in their skills and needs, they may receive the intervention differently and require additional supports such as error correction to reach 100% mastery, however, VP on its own is likely to be effective at helping individuals to reach skill mastery.

**Independence**

These findings indicate that not all individuals with disabilities may be able to use a video prompting intervention completely independently, but the level of prompt dependence may
decrease over time. While some individuals may be able to reach independence, others may still require prompts to use the intervention effectively. All three participants decreased significantly in the level of prompts they needed to access the intervention as time went on, showing an increased level of independence. Regardless of whether or not the individual can access it completely independently, they may be able to use it with increased independence over time as the participants in this study all had decreasing trends of prompts as the intervention progressed. As Cihak et al. (2007) suggested, VP interventions may increase independence as individuals can turn to the instruction videos for help rather than relying on instruction or prompting from another person (Cihak et al., 2007).

**Findings Compared to Previous Research**

As discussed in meta-analyses examining the scope of VP interventions, video promoting has been shown to be an effective strategy in teaching skills to children, adolescents and adults with developmental disabilities (Alberto, Cihak, & Gama, 2005; Le Grice & Blampied, 1994; Mechling, 2011). This study adds to the research on the use of video prompting with adolescents as it included 12- and 13-year-old participants. However, these findings could not strengthen evidence for its use with children and adults with developmental disabilities.

This study used peer models with basic scene modeling to teach skills using video prompting. As Van Laarhoven et al. (2009), Melching and Moser (2010), and Jones and Schwartz (2004) found, this modeling and perspective type was effective at teaching skills to participants with disabilities. These studies did not utilize self or adult models and other perspective types, but showed that basic scene modeling with peer models can be an effective strategy in a video prompting intervention to successfully teach skills to individuals with disabilities.
Social Validity

Through the lens of social validity, VP interventions may be valuable to families of individuals with disabilities. As Grace’s mother indicated, VP interventions may relieve tension at home over learning and performing regular hygiene tasks. Flynn and Healy found that low hygiene skills can be tolling for the families of individuals with disabilities, causing stress and caregiver burnout on those who assist the individual with daily tasks (Flynn & Healy, 2012). A VP intervention used in the home may help to ease the burden of teaching and practicing these skills. Video prompting may be a socially valid intervention for teaching hygiene skills to individuals with developmental disabilities just as it has been found to be socially valid to teach academic, vocational, social and life skills (Allen, Wallace, Renes, Bowen, & Burke, 2010; Burton, Anderson, Prater, & Dyches, 2013; Flynn & Healy, 2012; Van Laarhoven et al., 2009).

Using a VP intervention to increase hygiene skills may also improve overall life outcomes for individuals with developmental disabilities. As discussed in previous research, individuals with developmental disabilities that have higher levels of hygiene skills are more engaged in social interactions, are in contact with their families more often, receive fewer hours of habilitation, are engaged more in community outings, spend more hours working and are less likely to live in institutional settings (Francis et al., 2014; Houtenville & Daly, 2003; White & Dodder, 2000). VP interventions used to teach hygiene skills may increase the likelihood of success socially, vocationally, and in daily living for individuals with disabilities. Ensuring they acquire these skills before or during adolescence may make the transition to successful adulthood easier. Video prompting may be able to play a role in teaching these crucial skills to improve outcomes.
Limitations and Suggestions for Future Research

One of the most prominent limitations to the social validity measure in this study was the location and parent contact with the intervention. The study took place at school, which was not the natural environment for the participants to be practicing the targeted hygiene skills. Because of this, parents had limited interaction with the intervention which may have affected the social validity measure. Future research could benefit from generalization of the intervention to the participant’s natural environment where parents could better evaluate the social validity of the intervention for their child and family.

Additionally, the primary researcher and teacher of the participants was the person who collected the social validity data from the children and their parents. This may have led to socially desirable answers rather than completely honest answers about their opinions of the intervention process. Future research may benefit from a party separate from the interventionist collecting social validity data to achieve more candid results.

Another limitation was that the individual collecting data and evaluating the treatment fidelity was the primary researcher and author. Despite IOA data, primary data collected could have been swayed based on personal interest in the successful results in the study. Future research may be strengthened from having a researcher that is not the primary researcher and author be the primary data collector to avoid any bias.

Additionally, many of the participants and potential participants had hygiene deficits in skills that could not be appropriately filmed for a VP intervention, such as toileting and bathing. Video prompting may be effective for these skills; however, it is not ethical to film such skills. Further research may expand instruction techniques to these hygiene skills, although video prompting may not be involved.
Implications for Practitioners

Video prompting can be an effective intervention to teach hygiene skills to individuals with developmental disabilities. Video prompting has a significant effect on the accuracy at which individuals can perform hygiene tasks. Video prompting may be an appropriate intervention to use in schools, clinics, and homes to teach hygiene skills. VP interventions can be easily shared using technology once created, so it may be effective for one interventionist to create a VP intervention and share it across settings for the use of the individual for the generalization of the intervention and skills. As these findings show, VP interventions can be effective with early adolescents in a middle school setting. This may be helpful for students who are still lacking in these skills into adolescence and require additional interventions from teachers or practitioners to acquire essential hygiene skills. The use of technology may be desirable for adolescents and make video prompting interventions both effective and socially acceptable to teenage audiences.

In the creation of the intervention, the researcher created the intervention videos on an iPhone and then transferred them to iPads for use of the participants by using the sharing codes on the application. This feature of the Task Analysis application could be useful in making video prompting interventions easy to share and access for multiple practitioners. This may lessen the work required for practitioners to create the videos and increase accessibility to VP interventions for parents, teachers and clinicians. This may also make VP interventions useful across multiple settings, as a teacher could share the intervention videos to be used at home or in other settings to increase a student’s exposure to the intervention.

To ensure experimental control in this study, the VP videos were not changed throughout the course of the intervention. In other video prompting interventions, the videos have been
edited throughout the intervention to meet the needs of the viewers. The VP intervention may have been more effective at increasing the accuracy of the skills if they would have been adjusted to meet the needs of the participants. In other studies, such as the study conducted by Cannella-Malone et al. (2015), the videos were adjusted to meet the needs of the participants as they measured their progress. This study also, utilized in vivo error correction to improve the student’s performance while watching the videos (Cannella-Malone et al., 2015). To control for the independence of the intervention, error correction was not provided in this study. Practitioners outside of a research setting may benefit from being able to adjust the videos to meet the learning needs of their clients and provide error correction and feedback to increase the skill acquisition of the client or student.

Video prompting may not be an intervention that can be utilized by individuals with disabilities completely independently. While their independence may increase over time as they are exposed to the technology and intervention, some individuals may need consistent prompts to use the intervention effectively. This may require support from a teacher, parent or clinician, which could be minimally intrusive and relatively simple to provide training in. Over time, this support may be faded out as the individual learns the skill and no longer needs help from the videos to perform it. Video prompting may also be a tool for individuals to revisit independently when they need help with a skill they may have learned in the past rather than re-learning it from an adult. Further research may investigate this issue further and evaluate if the independent use of video prompting would hold a high value to stakeholders.

Video prompting is acceptable and desirable to individuals with developmental disabilities and their parents. Individuals with disabilities are likely to like VP interventions and desire to use them. For some families, it may be a desirable support for their child with a
developmental disability to learn and practice hygiene skills that otherwise cause frustration in
the home. It may be beneficial to families for practitioners to develop VP interventions and train
parents on how to deliver and use them consistently at home in order to promote successful
generalization of the intervention.

**Conclusion**

Video prompting has been found to be effective at teaching many skills including social,
vocational, academic and personal care skills to individuals with disabilities. As these findings
suggest, VP may also be effective to teach basic hygiene skills to individuals with disabilities
with hygiene deficits. VP may possibly be used by individuals with disabilities independently or
with minimal adult support. Further research may expand the value and possibility of
independence in using these interventions. Video prompting may also be a socially valid
intervention in teaching some skills to individuals with disabilities. This intervention may be
highly valuable for teachers, practitioners, and families to teach life skills to individuals with
disabilities.
References


doi:10.1177/1540796918777730


### Tables

**Table 1**

*Participant Demographics*

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<tr>
<th></th>
<th>Morgan</th>
<th>Grace</th>
<th>Oscar</th>
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<tr>
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<td>12</td>
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<td><strong>Race</strong></td>
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<td>$67_2$</td>
<td>$76_2$</td>
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<tr>
<td>(Standard Score)</td>
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<tr>
<td><strong>Adaptive Behavior Scale (Standard Score)</strong></td>
<td>$70_3$</td>
<td>$65_3$</td>
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<td>(Grade level equivalent)</td>
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<td>ADOS-2$_6$</td>
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Table 2

*Parent Rating of Participant Skills*

<table>
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<th>Skill</th>
<th>Morgan</th>
<th>Grace</th>
<th>Oscar</th>
</tr>
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<tr>
<td>Brushing Teeth</td>
<td>Independently (without reminders)</td>
<td>With help</td>
<td>Independently with a reminder</td>
</tr>
<tr>
<td>Flossing</td>
<td>Independently with a reminder</td>
<td>Cannot or will not do this</td>
<td>With help</td>
</tr>
<tr>
<td>Dressing</td>
<td>Independently (without reminders)</td>
<td>Independently with a reminder</td>
<td>Independently with a reminder</td>
</tr>
<tr>
<td>Combing/doing hair</td>
<td>Independently (without reminders)</td>
<td>With help</td>
<td>Cannot or will not do this</td>
</tr>
<tr>
<td>Washing face</td>
<td>Independently with a reminder</td>
<td>Cannot or will not do this</td>
<td>Cannot or will not do this</td>
</tr>
<tr>
<td>Washing hands</td>
<td>Independently with a reminder</td>
<td>Independently with a reminder</td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td>Cutting and</td>
<td>Independently with a reminder</td>
<td>With help</td>
<td>Cannot or will not do this</td>
</tr>
<tr>
<td>cleaning nails</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applying Deodorant</td>
<td>Independently with a reminder</td>
<td>Independently with a reminder</td>
<td>Independently with a reminder</td>
</tr>
<tr>
<td>Other Concerns</td>
<td>“Remembering deodorant. Changing stinky socks”</td>
<td>“She cries when we ask her to do most of these things. She will do them but needs help or throws a fit until she gets out of it. When she does them she doesn't do them well.”</td>
<td>“Oscar has a routine he sticks to, brushing his teeth and getting dressed. I need to ask him to do anything else. He brushes his teeth too fast. He never flosses, washes his face, or cuts his nails.”</td>
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</tbody>
</table>
Table 3

*Target Skills by Participant*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Task 1</th>
<th>Task 2</th>
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<tbody>
<tr>
<td>Morgan</td>
<td>Floss teeth</td>
<td>Apply eye make-up</td>
<td>Wash face</td>
</tr>
<tr>
<td>Grace</td>
<td>Floss teeth</td>
<td>Wash face</td>
<td>Brush teeth</td>
</tr>
<tr>
<td>Oscar</td>
<td>Wash face</td>
<td>Floss teeth</td>
<td>Brush teeth</td>
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</table>
Figure 1. Task accuracy and prompts to use technology: Morgan.
Figure 2. Task accuracy and prompts to use technology: Grace.
Figure 3. Task accuracy and prompts to use technology: Oscar.
APPENDIX A

Literature Review

Introduction

Ian is a 27-year-old man that has developmental disabilities including Autism and an Intellectual Disability. He attended public school from kindergarten to post-high, but his inappropriate behaviors often prevented him from making progress in school. Ian struggles to make conversation with others, cook for himself, shop for the items he needs, budget his money and perform basic self-care tasks like bathing and brushing his teeth. Because of his lack of life skills, Ian lives in a group home that is highly restrictive. Ian has little interaction with anyone other than the staff at his group home and receives occasional visits from his parents. Ian has had a few jobs in fast-food restaurants in the past but was quickly fired from each job because he failed to follow the directions of his managers and arrive to work on time with a neat and professional appearance. When Ian meets new people, others often feel uncomfortable around him because he smells bad and lacks conversation skills. Compared to others his age, Ian’s overall quality of life is poor. Had Ian learned the life skills he lacks, Ian may have a higher quality of life despite his developmental disabilities.

Developmental Disabilities

A developmental disability is defined as a long-term disability that affects physical functioning, cognitive functioning or both that results in limitations in two or more of the following areas: (a) self-care, (b) receptive and expressive language, (c) learning (d) mobility (e) self-direction (f) capacity for independent living, (e) economic self-sufficiency. Developmental disabilities are present before the age of 22 and are life-long (Wehmeyer, 2017). Most developmental disabilities are moderate to severe in nature. Because individuals with
developmental disabilities have learning and behavioral difficulties, they often require specialized instruction to learn both academic and life skills. This specialized instruction should utilize evidence-based practices to ensure high levels of learning and create the highest quality of life possible for these individuals. Some evidence-based practices frequently used with people with developmental disabilities include direct instruction, modeling, match to sample, discrete trial, prompting and fading, and generalization training (Wehmeyer, 2017). Transition from childhood to adulthood is frequently more challenging for individuals with developmental disabilities in comparison to peers without disabilities due to the adaptive limitations caused by their disability (White & Dodder, 2000). This calls for vocational and life skills to be a part of their education. Individuals with developmental disabilities can benefit from direct instruction and training in these areas to successfully live on their own, hold jobs, and enjoy social lives and leisure with or without support (Gilson, Carter, Bumble, & McMillan, 2018).

Due to the limitations of individuals with developmental disabilities, they frequently struggle to learn self-care skills that others learn easily as children, including personal care skills (Piccin, Crippa, Nobile, Hardan, & Brambilla, 2017). Individuals with developmental disabilities often do not understand the social importance of smelling and looking nice and enter their adolescence and even adulthood with limited skills to take care of their basic hygienic needs. This can negatively affect their health, their social acceptance, and relationships at school, work and throughout their community (Wehman et al., 2018). As these individuals grow and move into adolescence and adulthood, if their level of independence with daily living skills including personal care remains low, it can take a great toll on their parents and family members and limit their ability to live independently (Flynn & Healy, 2012). There is a substantial need
for additional research to find effective interventions to teach individuals with developmental disabilities daily living skills.

**Life Skills**

Life skills are defined as the functional skills needed for everyday life including self-care, home-care, communication, social skills and self-direction (Harrison & Oakland, 2003). These skills include doing laundry, house cleaning, using money to make purchases, bathing, dressing, self-management and many more. A key characteristic of individuals with developmental disabilities is limited life skills (White & Dodder, 2000).

Learning and mastering life skills is crucial for people with developmental disabilities to be independent and successful members of the community that enjoy a high quality of life. Individuals with developmental disabilities that have higher levels of life skills engage in more social interactions, are in contact with their families more often, receive fewer hours of habilitation, are engaged more in community outings, spend more hours working and are less likely to live in institutional settings (White & Dodder, 2000). It is estimated that only 17% of individuals with developmental disabilities live independently (Seals, 2016), and the employment rate for people with developmental disabilities in 2016 was 25.5%, compared non-disabled people, 76% (Kraus, Lauer, Coleman, & Houtenville, 2018). Research conducted by Francis, Blue-Banning, and Turnbull (2014) examining the quality of life for adults with developmental disabilities suggests that individuals with intellectual and developmental disabilities living in the community experience greater quality of life compared with individuals living in segregated institutional settings (Francis, Blue-Banning, & Turnbull, 2014). Personal independence and using these life skills are also essential for individuals with disabilities to gain and be successful in employment opportunities (Houtenville & Daly, 2003).
Without life skills, individuals with disabilities experience lower levels of community interactions, fewer opportunities for meaningful employment, higher dependence on caregivers and an overall lower quality of life (White & Dodder, 2000). There is a growing body of research on interventions to teach these crucial skills to individuals with disabilities. Video modeling is one evidence-based practice that has been proven to be effective in teaching life skills to individuals with developmental disabilities. (Gardner & Wolfe, 2014; Mechling & Moser, 2010; Piccin et al., 2017; Van Laarhoven, Zurita, Johnson, Grider, & Grider, 2009).

**Video Modeling**

Video modeling is an evidence-based practice with a large body of research supporting its effectiveness. Video modeling is the use of video and audio recordings to model skills or tasks for a watcher to learn them (Kellems et al., 2016). In video modeling, a video is shown modeling the task in its entirety, and then the viewer will attempt to perform the modeled skill. Video modeling has been shown to be an effective strategy in teaching functional skills like self-help, house chores, academic tasks, and vocational skills to individuals with moderate to severe disabilities (Hong et al., 2016). In Hong and colleagues' (2016) meta-analysis investigating video modeling, most of the research on video modeling focused on individuals with developmental disabilities including but not limited to Autism, Intellectual Disabilities, Learning Disabilities and other health-related developmental impairments. There are different forms of video modeling, such as video prompting.

**Video Prompting**

Video prompting is an evidence-based practice used to teach an array of skills to individuals with developmental disabilities (Banda, Dogoe, & Matuszny, 2011). Video prompting is an instructional method that falls under the category of video modeling, which also
uses video recordings and visual representations to teach a targeted skill. In contrast to traditional video modeling, in video prompting, the steps of the skill are broken down into discrete steps. For each step, there will be a video model of someone doing the task, and then a prompt and a pause in the video for the participant to complete that task before moving on to watch a model of the next step (Mechling, 2011). If a viewer of the video prompting feels they need to repeat the video or if they perform the step incorrectly, they can watch the prompt again and reattempt the step before moving on to the next step and prompt. Video prompting has been shown to be an effective strategy in teaching children, adolescents and adults with developmental disabilities (Alberto, Cihak, & Gama, 2005; Le Grice & Blampied, 1994; Mechling, 2011).

A review of literature suggests that video prompting can be more effective than video modeling in teaching skills to individuals with significant disabilities because it does not require the observer to remember a whole sequence of events from start to finish (Banda et al., 2011). Based on these findings, video prompting may be a more effective technique in facilitating rapid skill acquisition than video modeling in individuals with developmental disabilities.

As with many other skills, the ultimate goal is for individuals with developmental disabilities to be able to do as many skills as independently as possible, and most daily hygiene needs require several of these skills chained together. Video prompting is ideal for this goal as it allows for individuals to learn and perform tasks as independently as possible, and allows them to maintain the skill more independently as they can turn to a video rather than needing another person (Cihak, Kessler, & Alberto, 2007; Van Laarhoven & Van Laarhoven-Myers, 2006).

Cihak et al. (2007) created video prompting videos for tasks that three participants with developmental disabilities performed at their jobs at a grocery store. At the beginning of the intervention, the participants were trained to use the video prompting system to teach them skills
they used every day at work. At the beginning of the intervention, participants needed a lot of support to use the videos to learn skills, doing it independently only 19% of the time. Over time, the participants would turn to the videos to learn skills and were able to do this independently 74% of the time and maintained the skills the videos taught for nine weeks after the intervention that the researchers observed (Cihak et al., 2007). Video prompting often takes instruction or practice for the user to learn how to use, but once accustomed, users can navigate it easily to self-manage their learning and perform a task independently (Le Grice & Blampied, 1994).

The applications of video prompting are broad. A meta-analysis conducted by Piccin et al. (2017) on the use of video prompting and hygiene skills with children and adolescents with developmental disabilities and it was found that video prompting is an effective strategy to teach isolated hygiene tasks including washing hands, brushing teeth and toileting skills. Research has been done with video prompting and the teaching of chained skill sets including vocational skills, cooking, and physical fitness routines to adolescents and adults with developmental disabilities. When teaching these chained sets of skills, video prompting was effective at teaching skills to participants with developmental disabilities (Gies & Poretta, 2015; Graves, Collins, Schuster, & Kleinert, 2005; Mechling & Ortega-Hurndon, 2007). If video prompting is effective in teaching multi-step chained skills, it may also be effective in teaching a skill that includes several steps. In a comparison of video modeling and video prompting in a study of long-term skill acquisition in individuals with developmental disabilities, video prompting was shown to be successful in rapid acquisition of skills in all but one case, while video modeling was shown to be relatively ineffective, demonstrating the high efficacy of video prompting in comparison to standard video modeling (Cannella-Malone et al., 20015).
**Perspective types.** There are two different types of perspectives that are used in video prompting, which are point-of-view modeling and basic scene modeling (Murray & Noland, 2012). Point-of-view modeling is defined as video modeling recorded from the perspective of what the learner would see (Gardner & Wolfe, 2014). Basic scene modeling is recording someone performing the task from an observer’s perspective rather than the learner (Cotter, 2010; Murray & Noland, 2012). There is no clear trend as to which perspective is most effective, however, both have been found to be effective modes of video prompting (Van Laarhoven et al., 2009).

**Model types.** The question of who should be featured in a video made for the purpose of video prompting has been assessed by many researchers (Bellini & Akullian, 2007; Cotter, 2010; Gardner & Wolfe, 2014; Jones & Schwartz, 2004; Mason, Ganz, Parker, Berke, & Camargo, 2012; Melching & Moser, 2010; Murray & Noland, 2012; Van Laarhoven et al., 2009). The most commonly used and researched video models include self, peers, and adults. Self-models are defined as the child who is watching the video, a peer model is defined as a same-aged familiar peer of the child and an adult is an adult who is familiar to the child. All three models (self, peers, and adults), can be used in point-of-view and basic scene modeling.

Despite the many different types of models, there is no strong evidence showing one type to be most effective. In a study about the preference of video model of adolescents with developmental disabilities, it was found that there are no strong patterns of preference (Melching & Moser, 2010). As far as which model is most effective, literature shows inconsistent patterns but shows that all three models have proven to be effective in skill acquisition with video prompting (Jones & Schwartz, 2004). Both self-modeling and video prompting with peer models using point of view and basic scene modeling have been recognized as evidence-based
practices (Bellini & Akullian, 2007; Mason et al., 2012; Murray & Noland, 2012). The question of which type of model and perspective is the most effective is still unclear as there have been no strong trends, though we do know that all types have been shown to be effective to some degree (Van Laarhoven et al., 2009).

Skills Taught Using Video Prompting

**Academic.** Video prompting has been shown to be effective at teaching individuals with disabilities academic skills (Kellems & Edwards, 2016). The review of literature shows that video prompting has been effective at teaching academic skills to both individuals with specific learning disabilities as well as individuals with moderate to severe developmental disabilities. Burton, Anderson, Prater, and Dyches (2013) used video self-modeling to teach math skills to middle school students with developmental disabilities. The researchers recorded the student doing the target behavior and edited the video to be a model with instructions on how to complete the math skill. The participants watched the video of themselves and were able to pause or navigate throughout the video as they would like. The data recorded showed that all the students started at a low level of performance and all were able to perform the skill with 100% accuracy after the video self-modeling intervention.

A similar study was conducted using video prompting in teaching multi-step math skills to individuals with disabilities (Kellems et al., 2016). In this study, nine adults with developmental disabilities aged 18-22 attending post-high were selected to be instructed in functional math skills including calculating a tip, adjusting a recipe and unit price comparison through video prompting. During baseline data collection, it was found that none of the participants were able to do these tasks, scoring an average proficiency of 40% and below. After intervention, participants all showed a significant increase in skill proficiency, with 8 of the 9
participants scoring 80% or higher (Kellems et al., 2016). The use of video prompting to teach academic skills, especially math, has been proven to be highly effective.

**Life skills.** The study referenced above, (Kellems et al., 2016), is an example of how video prompting can be an effective strategy to teach both academic and functional skills to individuals with developmental disabilities. Life skills taught to individuals with developmental disabilities in schools often include hygiene, money, time, and social skills. Another study that used video prompting to teach life skills to individuals with developmental disabilities was done by Johnson, Blood, Freeman, and Simmons (2013). They used a multiple-probe-across-behaviors design to evaluate the effectiveness of video prompting in teaching food preparation skills to teenagers with developmental disabilities. They delivered the video prompting instruction on an iPod Touch to teach skills including making pizza, mac and cheese, and pizza. The results showed that the intervention was highly effective at increasing the independent performance of these important life skills (Johnson et al., 2013).

An additional study addressing another important life skill, washing dishes, was conducted by Gardner and Wolfe (2014) with varying individuals with developmental disabilities. They used video prompting to teach how to wash dishes and all of the participants showed rapid skill acquisition. Each of the five participants mastered the skill with 90% accuracy or higher after four or fewer sessions in intervention. The researchers followed-up with the participants two weeks after the intervention for skill maintenance and found that all of the participants retained the skill at mastery level of 80% or higher (Gardner & Wolfe, 2014).

Of the research reviewed, life skills that were addressed included cooking-related skills, (Bereznak, Ayres, Mechling, & Alexander, 2012; Sigafoos et al., 2005; Van Laarhoven et al., 2009; Van Laarhoven & Van Laarhoven-Myers, 2006), putting away groceries (Cannella-
Malone et al., 2015), washing dishes (Cannella-Malone et al., 2015; Sigafoos et al., 2007), washing and drying laundry (Bereznak et al., 2012; Cannella-Malone et al., 2015), folding laundry (Van Laarhoven et al., 2009; Van Laarhoven & Van Laarhoven-Myers, 2006), cleaning a table (Cannella-Malone et al., 2015; Van Laarhoven & Van Laarhoven-Myers, 2006), shoe-tying (Rayner, 2011), and sweeping (Cannella-Malone et al., 2015; Domire & Wolf, 2014). All of these skills were taught successfully with video prompting, demonstrating the efficacy of the intervention for these life skills. While there is a growing body of research on the use of video prompting to teach life skills, there are still several life skills to be thoroughly researched with video prompting, including hygiene and personal care skills.

**Social skills.** Video prompting has also been effective at teaching social skills to children with developmental disabilities. Social skills including personal space and touch, making eye contact, greeting others and conversation skills have been taught using video prompting techniques (Gelbar, Anderson, Mccarthy & Buggey, 2011). A review of literature by Gelbar et al. (2011) found that video prompting is an evidence-based practice for teaching individuals with developmental disabilities social and communication skills including responding appropriately to questions, making appropriate requests of peers and adults, initiating play, taking turns, and overall social engagement in classrooms and in unstructured play.

A study conducted by faculty of Northern Illinois University examined the use of video prompting in teaching social skills to individuals with developmental disabilities in general education classrooms such as engaging in group activities, attending to a teacher, following directions and interacting with class members appropriately (Blood, Johnson, Ridenour, Simmons, & Crouch, 2011). The intervention was a video of same-aged peers who modeled the target social skills with adult narration explaining each step. The video was shown to the
participants each day before the participants went to class on an iPod touch and the students were observed for the target skills. The results showed that the intervention led to the participants having an increase in target behaviors by 70% or more (Blood et al., 2011). The literature reviewed included students with developmental disabilities that had low social and adaptive skills, and in all cases, the social interaction, and appropriate communication skills increased significantly after a video prompting intervention was implemented (Blood et al., 2011; Flynn & Healy, 2012).

**Vocational.** Video prompting is also an effective intervention for teaching transition and vocational skills to individuals with disabilities. It is important for individuals with disabilities to learn vocational skills including; money, transportation, self-management, and other skills necessary for specific jobs. A study was done examining the use of video prompting in teaching office skills such as making copies to individuals with developmental disabilities (Bereznak et al., 2012). The researchers delivered video prompting on an iPhone to model the target office skills. All of the participants went from an average of 20% proficiency at baseline to an average of 95% in intervention, with 85% proficiency in the follow-up for skill maintenance (Bereznak et al., 2012). Another study focused on appropriate interactions with customers on a job site including smiling, waving, greeting and engaging in appropriate conversations (Allen, Wallace, Renes, Bowen, & Burke, 2010). The researchers administered video prompting instruction on the job site to teach the target job skills relating to customer service and measured the use of the skills taught and compared them to a criterion of expected behaviors for a customer service employee. After intervention, all of the participants met or exceeded the criteria. Participants also expressed that their confidence in performing job tasks and their ability to keep their job was increased after the intervention (Allen et al., 2010). The use of video prompting can be effective
in teaching individuals with developmental disabilities vocational skills that may improve their ability to obtain and keep employment (Kellems & Morningstar, 2012), yet there is more research to be done on the use of video prompting to teach a wider range of vocational skills.

**Technology**

The use of technology is an integral piece of video modeling and video prompting. Technological devices such as iPads, iPhones, iPods, and similar phones and tablets are common mediums for video prompting. The use of these devices has been reported to be effective and socially valid to use in instruction with individuals with disabilities because “they are portable, relatively inexpensive, and used frequently among individuals without disabilities, which potentially makes their use socially acceptable and reinforcing” (Blood et al., 2011, p. 301).

**Social Validity**

The teaching and maintenance of daily living skills has been shown to be of high importance to the parents and families of individuals with developmental disabilities. The burden placed on families to take care of the personal care needs of a family member with a developmental disability can be overwhelming (Flynn & Healy, 2012). The need to improve the independence level of these individuals is crucial in improving their lives and the lives of their families.

The use of technology in education has been shown to be of high value. In a survey of parents regarding the use of technology in teaching students, 82% of parents felt it very important for schools to “make good use of technology in educating students” and 68% felt technology is important in accommodating students with disabilities and diverse learning needs. Additionally, 70% of households with children have a tablet in the home and nearly 92% of all
households have a computer (Biddle, 2013). Using technology like a tablet with or computer to access video prompting is a viable and option for families

**Conclusion**

The accessibility, efficacy, and social validity of video prompting interventions make them a viable option for families, teachers and practitioners of individuals with developmental disabilities. Video prompting has been shown to successfully teach skills to individuals with developmental disabilities of varying ages. These skills have included academic, vocational, social, and overall life skills. There is still, however, a great opportunity for research and development of video prompting interventions for individuals with developmental disabilities.
References


doi:10.1177/1088357614547810


doi:10.18666/palaestra-2015-v29-i4-7177

doi:10.1177/1540796917751134


In D. C. Stapleton & R. V. Burkhauser (Eds.), The decline in employment of people with


doi:10.1177/1540796918777730

APPENDIX B

Data Collection Sheet

Participant ID #: ________________________________

Task: Floss Teeth

KEY: + - Step completed correctly  --- Step not completed correctly

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<tr>
<td>2. Put floss pick between teeth set 1</td>
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<td>3. Wiggle floss pick back and forth</td>
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<td>4. Remove floss pick from crevice</td>
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17. Remove floss pick from crevice
18. Put floss pick between teeth set 6
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20. Remove floss pick from crevice
21. Put floss pick between teeth set 7
22. Wiggle floss pick back and forth
23. Remove floss pick from crevice
24. Put floss pick between teeth set 8
25. Wiggle floss pick back and forth
26. Remove floss pick from crevice
27. Put floss pick between teeth set 9
28. Wiggle floss pick back and forth
29. Remove floss pick from crevice
30. Put floss pick between teeth set 10
31. Wiggle floss pick back and forth
32. Remove floss pick from crevice
33. Put floss pick between teeth set 11
34. Wiggle floss pick back and forth
35. Remove floss pick from crevice
36. Put floss pick between teeth set 12
37. Wiggle floss pick back and forth
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<tr>
<td>60. Put floss pick between teeth set 20</td>
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<tr>
<td>61. Wiggle floss pick back and forth</td>
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<td></td>
<td></td>
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<tr>
<td>62. Remove floss pick from crevice</td>
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<td></td>
<td></td>
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<tr>
<td>63. Put floss pick between teeth set 21</td>
<td></td>
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<td>64. Wiggle floss pick back and forth</td>
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<td>65. Remove floss pick from crevice</td>
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<tr>
<td>66. Put floss pick between teeth set 22</td>
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<tr>
<td>67. Remove floss pick from crevice</td>
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<td>68. Put floss pick between teeth set 23</td>
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<td>69. Wiggle floss pick back and forth</td>
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<td>70. Remove floss pick from crevice</td>
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<tr>
<td>71. Put floss pick between teeth set 24</td>
<td></td>
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<tr>
<td>72. Wiggle floss pick back and forth</td>
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<td>73. Remove floss pick from crevice</td>
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<tr>
<td>74. Put floss pick between teeth set 25</td>
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<tr>
<td>75. Wiggle floss pick back and forth</td>
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<td></td>
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<tr>
<td>76. Remove floss pick from crevice</td>
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<tr>
<td>77. Put floss pick between teeth set 26*</td>
<td></td>
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<td>78. Wiggle floss pick back and forth</td>
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<td></td>
</tr>
<tr>
<td>79. Remove floss pick from crevice</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>80. Throw floss pick away</td>
<td></td>
<td></td>
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Prompts to use technology
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</thead>
<tbody>
<tr>
<td>Percentage of steps completed correctly</td>
<td></td>
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</tbody>
</table>

Notes:

Note: Adapted from Kellems & Morningstar (2012) Using video modeling delivered through iPods to teach vocational tasks to young adults with autism spectrum disorders (ASD)

*Data collection sheet was altered slightly for each participant depending on how many teeth the participant had.*
**Data Collection Sheet**

Participant ID #: ________________________________________________

**Task: Wash Face**

KEY: + - Step completed correctly  - – Step not completed correctly

<table>
<thead>
<tr>
<th>Task Analysis Steps:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pull hair back (remove if short hair)</td>
<td></td>
</tr>
<tr>
<td>2. Turn faucet on</td>
<td></td>
</tr>
<tr>
<td>3. Check water temperature- adjust if needed</td>
<td></td>
</tr>
<tr>
<td>4. Pick up washcloth</td>
<td></td>
</tr>
<tr>
<td>5. Wet washcloth</td>
<td></td>
</tr>
<tr>
<td>6. Turn off faucet</td>
<td></td>
</tr>
<tr>
<td>7. Pick up face wash</td>
<td></td>
</tr>
<tr>
<td>8. Open face wash</td>
<td></td>
</tr>
<tr>
<td>9. Squeeze pea sized amount of face wash onto washcloth</td>
<td></td>
</tr>
<tr>
<td>10. Close face wash</td>
<td></td>
</tr>
<tr>
<td>11. Put face wash down</td>
<td></td>
</tr>
<tr>
<td>12. Lift washcloth to face</td>
<td></td>
</tr>
<tr>
<td>13. Scrub face- forehead</td>
<td></td>
</tr>
<tr>
<td>14. Scrub face- checks</td>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15.</td>
<td>Scrub face-chin</td>
</tr>
<tr>
<td>16.</td>
<td>Scrub face-nose</td>
</tr>
<tr>
<td>17.</td>
<td>Lower washcloth from face</td>
</tr>
<tr>
<td>18.</td>
<td>Turn faucet on</td>
</tr>
<tr>
<td>19.</td>
<td>Rinse washcloth</td>
</tr>
<tr>
<td>20.</td>
<td>Turn faucet off</td>
</tr>
<tr>
<td>21.</td>
<td>Rinse all face wash off face</td>
</tr>
<tr>
<td>22.</td>
<td>Put washcloth down</td>
</tr>
<tr>
<td>23.</td>
<td>Get dry towel</td>
</tr>
<tr>
<td>24.</td>
<td>Pat face dry with dry towel</td>
</tr>
</tbody>
</table>

**Prompts to use technology:**

**(B) Baseline / (I) Intervention**

**Percentage of steps completed correctly**

**Notes:**

Note: Adapted from Kellems & Morningstar (2012) Using video modeling delivered through iPods to teach vocational tasks to young adults with autism spectrum disorders (ASD)
Data Collection Sheet

Participant ID #: __________________________________________

Task: Brush Teeth

KEY: + - Step completed correctly  -- Step not completed correctly

<table>
<thead>
<tr>
<th>Task Analysis Steps:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date</td>
</tr>
<tr>
<td>1. Pick up toothpaste</td>
<td></td>
</tr>
<tr>
<td>2. Open toothpaste container</td>
<td></td>
</tr>
<tr>
<td>3. Pick up toothbrush</td>
<td></td>
</tr>
<tr>
<td>4. Squeeze pea sized amount of toothpaste on brush</td>
<td></td>
</tr>
<tr>
<td>5. Replace cap on toothpaste</td>
<td></td>
</tr>
<tr>
<td>6. Put down toothpaste</td>
<td></td>
</tr>
<tr>
<td>7. Turn on faucet</td>
<td></td>
</tr>
<tr>
<td>8. Wet toothbrush</td>
<td></td>
</tr>
<tr>
<td>9. Turn faucet off</td>
<td></td>
</tr>
<tr>
<td>10. Put toothbrush into mouth</td>
<td></td>
</tr>
<tr>
<td>11. Scrub top of back bottom teeth</td>
<td></td>
</tr>
<tr>
<td>12. Scrub sides of back bottom teeth</td>
<td></td>
</tr>
<tr>
<td>13. Scrub front of front bottom teeth</td>
<td></td>
</tr>
<tr>
<td>14. Scrub back of front bottom teeth</td>
<td></td>
</tr>
<tr>
<td>15. Scrub tops of back top teeth</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>16</td>
<td>Scrub sides of back top teeth</td>
</tr>
<tr>
<td>17</td>
<td>Scrub front of front top teeth</td>
</tr>
<tr>
<td>18</td>
<td>Scrub back of front top teeth</td>
</tr>
<tr>
<td>19</td>
<td>Scrub tongue</td>
</tr>
<tr>
<td>20</td>
<td>Spit out extra toothpaste</td>
</tr>
<tr>
<td>21</td>
<td>Turn faucet on</td>
</tr>
<tr>
<td>22</td>
<td>Rinse toothbrush</td>
</tr>
<tr>
<td>23</td>
<td>Rinse mouth</td>
</tr>
<tr>
<td>24</td>
<td>Turn off faucet</td>
</tr>
<tr>
<td>25</td>
<td>Replace toothbrush to place</td>
</tr>
<tr>
<td></td>
<td>Prompts to use technology</td>
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<tr>
<td></td>
<td><strong>(B) Baseline / (I) Intervention</strong></td>
</tr>
<tr>
<td></td>
<td>Percentage of steps completed correctly</td>
</tr>
</tbody>
</table>

Notes:

Note: Adapted from Kellems & Morningstar (2012) Using video modeling delivered through iPods to teach vocational tasks to young adults with autism spectrum disorders (ASD)
**Data Collection Sheet**

Participant ID #: ________________________________

**Task:** Eye Makeup

**KEY:**  + - Step completed correctly          - - Step not completed correctly

<table>
<thead>
<tr>
<th>Task Analysis Steps:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pick up eyeliner</td>
<td></td>
</tr>
<tr>
<td>2. Open eyeliner</td>
<td></td>
</tr>
<tr>
<td>3. Draw line on bottom of lid 1</td>
<td></td>
</tr>
<tr>
<td>4. Draw line on bottom of lid 2</td>
<td></td>
</tr>
<tr>
<td>5. Replace cap on eyeliner</td>
<td></td>
</tr>
<tr>
<td>6. Put eyeliner down</td>
<td></td>
</tr>
<tr>
<td>7. Pick up eyeshadow</td>
<td></td>
</tr>
<tr>
<td>8. Open eyeshadow</td>
<td></td>
</tr>
<tr>
<td>9. Pick up eyeshadow brush</td>
<td></td>
</tr>
<tr>
<td>10. Dab brush in eyeshadow</td>
<td></td>
</tr>
<tr>
<td>11. Apply eyeshadow on eyelid 1-cover eyelid</td>
<td></td>
</tr>
<tr>
<td>12. Dab brush in eyeshadow</td>
<td></td>
</tr>
<tr>
<td>13. Apply eyeshadow on eyelid 2-cover eyelid</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15.</td>
<td>Replace eyeshadow brush</td>
</tr>
<tr>
<td>16.</td>
<td>Close eyeshadow</td>
</tr>
<tr>
<td>17.</td>
<td>Put eyeshadow down</td>
</tr>
<tr>
<td>18.</td>
<td>Pick up mascara</td>
</tr>
<tr>
<td>19.</td>
<td>Open mascara</td>
</tr>
<tr>
<td>20.</td>
<td>Brush eyelashes with brush on eye 1</td>
</tr>
<tr>
<td>21.</td>
<td>Put mascara wand back in container</td>
</tr>
<tr>
<td>22.</td>
<td>Take wand out</td>
</tr>
<tr>
<td>23.</td>
<td>Brush eyelashes with brush on eye 2</td>
</tr>
<tr>
<td>24.</td>
<td>Replace wand</td>
</tr>
<tr>
<td>25.</td>
<td>Put Mascara down</td>
</tr>
</tbody>
</table>

Prompts to use technology:

(B) Baseline / (I) Intervention

Percentage of steps completed correctly

Notes:

Note: Adapted from Kellems & Morningstar (2012) Using video modeling delivered through iPods to teach vocational tasks to young adults with autism spectrum disorders (ASD)
APPENDIX C

Video Scripts

Video 1: Floss Teeth

Scene 1

Showing same aged peer in front of a sink (camera from a profile view).

Adult voiceover will say: “We are going to learn to floss our teeth. For this, you will need floss picks. Find them now.”

Showing point of view of peer (camera straight on): picks up floss picks and shows camera.

Adult voiceover will say: Pick up the bag of floss picks and open it. Get one floss pick out of the bag. Go ahead and do this now.

Peer will get open bag and get one floss pick out of bag. Video stops.

Scene 2

Camera will show peer holding floss pick facing straight on.

Adult will say: “Once you have your floss pick, you are going to begin flossing by taking the floss pick to your upper teeth. Put the floss pick in your mouth and put the floss pick in between two of your teeth and wiggle it back and forth. Pull it out and then repeat this with every tooth on the top of your mouth, wigging the floss pick between each set of top teeth.”

Peer model will floss all of their top teeth, putting floss pick between each tooth, wiggling it back and forth and pulling it out.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

Scene 3

Camera showing peer model straight on holding floss pick.
Adult will say “Now you are going to floss your bottom teeth by repeating the same motion on your bottom teeth. Hold the floss pick the other way and put the floss pick in between each of your bottom teeth and wiggle it around, then pull it out. Do this for each tooth on the bottom of your mouth.

Peer model will floss all of their bottom teeth, putting floss pick between each tooth, wiggling it back and forth and pulling it out.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

Scene 4

Camera showing peer model straight on holding floss pick.

Adult will say “Before you finish, make sure you have put the floss pick between all of your teeth, on the bottom, top, front and back of your mouth.”

Peer model will repeat flossing some of their top and bottom teeth, putting floss pick between each tooth, wiggling it back and forth and pulling it out.

Video will pause automatically to allow participant to perform the task.

Scene 5

Camera showing peer model straight on holding floss pick.

Adult will say: “Once you have flossed all of your teeth, throw the floss pick away. You are now finished flossing your teeth. Great job!”

Peer model will throw floss pick away.

End video.
Video 2: Wash Face

Scene 1

Showing same aged peer in front of a sink (camera from a profile view).

Adult voiceover will say: “Today we will be washing our face. For this you will need: a sink,”

Peer will point to the sink.

Adult will say “a washcloth,”

Peer will point to the washcloth, pick it up and show it to the camera.

Adult will say “facewash,”

Peer will point to the facewash, pick it up and show it to the camera.

Adult will say “and a dry towel.”

Peer in video will point to the dry towel.

Adult will say: “Go ahead and find these items now.”

Video will pause automatically to allow participant to perform the task.

Scene 2

Camera will show peer straight on with hair down.

Adult will say: “The first step is to pull your hair out of your face if you have long hair. You can use a hair tie or tuck it behind your ears or shirt. Do this now if you have long hair.”

Peer model will tuck hair behind ears and move hair to back of neck.

Adult will say: “Do this now if you have long hair.”

Video will pause automatically to allow participant to perform the task.
Scene 3

Camera will show peer model standing at sink will adequate view of hands at sink.

Adult will say “Once your hair is out of your face, you will go to the sink and turn it on by pulling the lever up. Feel the water to see if it is too hot or too cold. Adjust the water by twisting the handle if it is too hot or too cold.”

Peer model will turn the water on, feel the water and then adjust the tap, and then feel the water again.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

Scene 4

Showing peer model standing at sink will adequate view of the running water.

Adult will say “Once the water temperature is warm and comfortable, pick up your washcloth and get it wet by putting it under the water. You do not have to get the whole washcloth wet. Turn off the tap by pushing the handle down. Pick up your face wash, open the cap and squeeze a small amount of facewash onto the washcloth. Close the cap on the facewash and put it back down”

Peer will pick up washcloth and wet it. Peer will turn off water, pick up the facewash, remove the cap and squeeze a small amount onto the washcloth. Peer will close facewash and put it down.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.
Scene 5

Video will show peer holding wet washcloth with facewash.

Adult will say: “Pick your washcloth up to your face and begin to scrub your face. Scrub gently in circles. Scrub your whole face, your forehead, chin, cheeks and nose until your entire face is covered in facewash. Scrub gently, not too hard.

Video will show peer model scrubbing entire face with washcloth.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

Scene 6

Video will show peer model straight on with facewash on face, holding washcloth.

Adult will say: “Now turn the water back on by lifting the tap, make sure the water is not too hot or cold. Put your washcloth under the water and rinse off all of the facewash. Make sure your washcloth is nice and wet. Turn the water back off and now it is time to rinse your face. Wipe your whole face in all the places you scrubbed it with facewash. This will take off all the facewash and your face will be clean.”

Peer model will turn water on, rinse washcloth and turn water back off. Peer model will clean all facewash off face with wet washcloth.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

Scene 7

Video will show peer model straight on finishing washing facewash off face.
Adult will say: “Once you have washed all of the facewash off of your face, you will put your wet washcloth back and get the dry towel. With your dry towel, pat your face until it is completely dry. Your face is now dry and your face is clean. Great job!”

Peer model will put down wet washcloth, pick up dry towel and pat face dry.

Video will pause automatically to allow participant to perform the task.

End video.
**Video 3: Brush Teeth**

*Scene 1*

Showing same aged peer in front of a sink (camera from a profile view).

Adult voiceover will say: “Today we are going to learn to brush our teeth. You will need a toothbrush,”

Peer will point to the toothbrush, pick it up and show it to the camera.

Adult will say “toothpaste,”

Peer will point to the toothpaste, pick it up and show it to the camera.

Adult will say “and a sink.”

Peer will point to the sink.

Adult will say: “Go ahead and find these items now.”

Video will pause automatically to allow participant to perform the task.

*Scene 2*

Showing same aged peer in front of a sink (camera from a profile view).

Adult will say: “Pick up the toothpaste and unscrew the cap. Pick the toothbrush up and squeeze a small amount of toothpaste onto the toothbrush.”

Peer model will pick up and open toothpaste, squeeze a small amount onto toothbrush.

Adult will say: “Screw the lid back on the toothpaste and put the toothpaste down.”

Peer model put lid back onto the toothpaste and put it down.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

*Scene 3*

Camera will show peer model standing at sink will adequate view of hands at sink.
Adult will say “Once you have toothpaste on your toothbrush, turn on the water and get your toothbrush wet by putting the toothbrush under the water. Once your toothbrush is wet, turn the water back off.”

Peer model will turn the water on and wet toothbrush, then turn water back off.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

*Scene 4*

Showing peer model straight on holding toothbrush.

Adult will say: “Pick up your toothbrush and put it into your mouth. Scrub your top teeth first, scrubbing the back, front, and sides of all your top teeth. Scrub hard, but not so hard that it hurts.”

Peer will scrub all of top teeth.

Adult will say: “Scrub your bottom teeth next, scrubbing the back, front, and sides of all your top teeth.”

Peer will scrub all of bottom teeth.

Adult will say: “Scrub all of your teeth. If you need to, you can spit extra toothpaste into the sink. Spit extra toothpaste like this.”

Peer will spit out extra toothpaste.

Adult will say: “Continue scrubbing your teeth.”

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

*Scene 5*

Video will show peer with toothbrush in mouth.
Adult will say: “Before you finish, make sure you have scrubbed all of your teeth, including the front, back, sides, bottoms and tops of all your teeth.”

Peer will continue scrubbing teeth.

Adult will say: “After you have brushed all your teeth, scrub the top of your tongue.”

Peer will scrub tongue.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

*Scene 6*

Video will show peer model with toothbrush in mouth.

Adult will say: “Once you have scrubbed all your teeth and your tongue, spit all the extra toothpaste out of your mouth. Turn the faucet on and rinse your toothpaste and your toothbrush. Put your toothbrush under the water. You can rinse your mouth out by putting a little bit of water in your mouth and spitting it back out. Turn the water back off.”

Peer model will turn water on, rinse toothbrush and mouth. Peer will turn water off.

Adult will say: “Put your toothbrush away and make sure the water is off, and you have brushed your teeth. Great job!”

Peer will put toothbrush down.

Video will pause automatically to allow participant to perform the task.

End video.
Video 4: Apply Eye Makeup

Scene 1

Showing same aged peer in front of a sink (camera from a profile view).

Adult voiceover will say: “Today we are going to learn to do eye makeup. To do your eye makeup, you will need eyeliner,”

Peer will point to the eyeliner, pick it up and show it to the camera.

Adult will say “mascara,”

Peer will point to the mascara, pick it up and show it to the camera.

Adult will say “eyeshadow and an eyeshadow brush,”

Peer will point to the eyeshadow and brush, pick it up and show it to the camera.

Adult will say “and a tissue or some toilet paper.”

Peer will point to the tissue/toilet paper, pick it up and show it to the camera.

Adult will say: “Go ahead and find these items now.”

Video will pause automatically to allow participant to perform the task.

Scene 2

Showing peer straight on.

Adult will say: “Pick up the eyeliner and take the cap off. Draw a thin line at the bottom of your eyelid where the eyelid meets the eyelash. Be careful and do this slowly. Do it on one eye, and when you are finished, do it on the other eye. Make sure you draw a line on both eyes, and don’t push too hard, or you may hurt your eye.”

Peer model will pick up eyeliner, take cap off and draw a thin line on each eye. Camera will zoom in to show this.

Adult will say: “Go ahead and do this now.”
Video will pause automatically to allow participant to perform the task.

*Scene 3*

Camera will show peer model standing at mirror holding eyeliner.

Adult will say “Put the cap on the eyeliner and put it down. Pick up the eyeshadow and the eyeshadow brush. Open the eyeshadow and dab the brush into the eyeshadow. Cover your first eyelid with eyeshadow by gently rubbing the brush on your eyelid. Make sure you cover your whole eyelid. Once your eyelid is covered, dab the eyeshadow brush in the eyeshadow again and cover your second eye. Again, make sure you cover the whole eyelid and be careful not to press too hard”

Peer model replace cap on eyeliner, put it down and will open eyeshadow and dab the brush in it.

Peer model will cover the first eyelid with eyeshadow and repeat with second eyelid.

Adult will say: “Go ahead and do this now.”

Video will pause automatically to allow participant to perform the task.

*Scene 4*

Showing peer model straight on holding eyeshadow and brush.

Adult will say: “Once you have put on your eyeshadow put the eyeshadow and brush down.

Pick up the mascara and twist the mascara cap open. Pull the mascara wand out of the tube. Put the mascara on by starting the brush at the bottom of your top eyelashes and slowly moving the brush upwards. Go slowly and carefully. You can get more mascara by dipping the wand back in the tube and taking it back out. Put mascara on your other eye.”

Peer will put eyeshadow down. Peer will pick up mascara and twist to open the tube. Peer will apply mascara on both eyes, dipping the wand back into the tube after the first eye.

Adult will say: “Go ahead and do this now.”
Video will pause automatically to allow participant to perform the task.

*Scene 5*

Video will show peer with mascara in hand.

Adult will say: “Put the mascara back in the tube and twist it closed. Put the mascara back down and check your eyes to make sure you didn’t make any mistakes. Wipe any smudges or mistakes gently with a tissue or toilet paper. You are finished with your eye makeup. Great job!”

Peer will close mascara and put it down. Peer will look in mirror and fix any smudges with tissue.

Video will pause automatically to allow participant to perform the task.

*Scene 6*

End video.
APPENDIX D

IRB Consent

Memorandum
To: Professor Ryan Kellems
Department: CP&SE
College: EDUC
From: Sandee Aina, MPA, IRB Administrator Bob Ridge, PhD, IRB Chair
Date: February 12, 2019 IRB#: X18417

Title: “The Use of Video-based Instruction to Teach Life Skills to Individuals with Disabilities”

Brigham Young University’s IRB has approved the research study referenced in the subject heading as expedited level, categories 5-7. The approval period is from February 12, 2019 to February 11, 2020. Please reference your assigned IRB identification number in any correspondence with the IRB. Continued approval is conditional upon your compliance with the following requirements:

1. CONTINGENCY
   - Alpine School district approval
   - Revised recruitment tools (including adjusted eligible age range)
2. A copy of the informed consent statement is attached. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
3. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
4. All recruiting tools must be submitted and approved by the IRB prior to use.
   - In addition, serious adverse events must be reported to the IRB immediately, with a written report by the PI within 24 hours of the PI's becoming aware of the event. Serious adverse events are (1) death of a research participant; or (2) serious injury to a research participant.
5. All other non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB.
6. A few months before the expiration date, you will receive a continuing review form. There will be two reminders. Please complete the form in a timely manner to ensure that there is no lapse in the study approval.

IRB Secretary
A 285 ASB
Brigham Young University
(801)422-3606
APPENDIX E

Consent and Assent Forms

Parents and Guardians,

You and your child are being invited to participate in a research study being conducted by Kori Esplin, a graduate student in the Special Education department at Brigham Young University. The purpose of this study is to see if video instruction is an effective method for teaching personal care skills to youth with disabilities. All students in the life skills class will receive video instruction on personal care skills, but you and your child’s participation in the study will allow the results to recorded and published as a part of the research study.

Complete details of the research are included in the following documents. It is important that you read each document carefully so that you understand what you and your child’s participation in the study will include. The following is a description of each of the included forms:

Consent to be a Research Subject
You are being invited to participate in this research by completing a survey about your child’s hygiene skills. The “Consent to be a Research Subject” explains your participation in the study and allows you to give or deny consent for yourself participate in the research.

Research Survey
This is the survey you will fill out about your child as your participation in the study.

Parental Consent for a Minor to be a Research Subject
The “Parental Consent for a Minor to be a Research Subject” form gives details of what your child would do if they participate in the study and will allow you to give or deny consent for your child to participate in the study.

Video Release Form
This form explains the use of video recording in this research and will allow you to give or deny consent for your child to be video recorded while participating in this study.

Your participation in this study is optional. Should you choose to participate, your participation will be kept confidential. Your participation or choice not to participate will not affect your relationship with the school or district in any way. Please sign and return these forms in the enclosed envelope by: ___________________________. Feel free to contact Kori Esplin at kesplin@alpinedistrict.org or 801-610-8134 ext. 134 with any questions about this research.

Thank you for your time and participation,

Kori Esplin
Los padres y tutores,

Usted y su hijo está siendo invitado a participar en un estudio de investigación llevado a cabo por Kori Esplin, un estudiante graduado en el departamento de Educación Especial en la Universidad Brigham Young. El propósito de este estudio es ver si la instrucción de video es un método eficaz para la enseñanza de habilidades de cuidado personal a los jóvenes con discapacidades. Todos los estudiantes en la clase de habilidades para la vida recibirán instrucción de video en las habilidades de cuidado personal, pero usted y la participación de su hijo en el estudio permitirán a los resultados registrados y publicado como parte del estudio de investigación.

Los detalles completos de la investigación se incluyen en los siguientes documentos. Es importante que lea cuidadosamente cada documento para que pueda entender lo que usted y la participación de su hijo en el estudio incluirá. La siguiente es una descripción de cada uno de los formularios incluidos:

**El consentimiento para ser sujeto de investigación**
Se le invita a participar en esta investigación, completando una encuesta sobre hábitos de higiene de su hijo. El “Consentimiento para ser sujeto de investigación”, explica su participación en el estudio y le permite dar o denegar el consentimiento por sí mismo participar en la investigación.

**Encuesta de Investigación**
Esta es la encuesta va a llenar sobre su hijo como su participación en el estudio.

**Consentimiento de los padres de un menor a ser un tema de investigación**
El “consentimiento de los padres de un menor de edad para ser sujeto de investigación” forma da detalles de lo que su hijo haría si participan en el estudio y le permitirá dar o negar su consentimiento para que su hijo participe en el estudio.

**Formulario de Autorización de vídeo**
Este formulario explica el uso de la grabación de vídeo en esta investigación y le permitirá dar o negar su consentimiento para que su hijo sea el video grabado durante su participación en este estudio.

Su participación en este estudio es opcional. Si decide participar, su participación será confidencial. Su participación o la opción de no participar no afectará su relación con la escuela o el distrito de ninguna manera. Por favor firme y devuelva estos formularios en el sobre adjunto por: __________________________. Por favor contactar Kori Esplin en kesplin@alpinedistrict.org o 801-610-8134 ext. 134 con cualquier pregunta sobre esta investigación.

Gracias por su tiempo y participación,

Kori Esplin
Parental Consent for a Minor to be a Research Subject

Introduction
Your child is invited to participate in a research study conducted by Ryan Kellems, PhD an Assistant Professor of Special Education at Brigham Young University and Kori Esplin, a graduate student at Brigham Young University. He is conducting a research study about whether or not video instruction can be used to teach life skills to individuals with disabilities. We will use videos to teach students daily living skills like brushing their teeth, washing their hands and other self-care skills in order to study whether or not this an effective teaching strategy. Your child is being invited to take part in the research because he/she has a disability and has the potential to benefit from using these videos.

Procedures
To obtain background information on your student, we will access your child’s IEP and other assessment records, including but not limited to adaptive behavior records, IQ scores and life skills data. Any information that is obtained in connection with this study and that can be identified with your child will remain confidential and will be disclosed only with your permission. Your child’s teacher will access their IEP and educational records and share this information with us. Your consent for your child’s participation includes your consent for us to access your child’s educational records as described above. We will not access and use your child’s educational records for research purposes without your consent for them to participate.

- The research will take place at your child’s school and will take place during their life skills class. The research will take place over twelve weeks as we collect data. There will be about three sessions per week and each session should take less than thirty minutes. The study will last for approximately two months. It is anticipated that your child will participate in the study for a total of 8 hours.

- The intervention will consist of a student watching a video representation of a task and/or navigating the video prompting and then completing the tasks observed in the video. The videos will be shown to your child on an iPad and will demonstrate each step of the task. After demonstrating, the video will prompt your student to do the task. We will focus on daily living and hygiene tasks such as teeth brushing, using deodorant and face washing. We will record data on the accuracy of their performance of the task. Because of the nature of the targeted hygiene skills and the need for a sink and/or mirror, sessions will take place in the nurse’s restroom and there will be two or more adults with your student during each session. Each session will take no more than 30 minutes.

- The video-based life skills instruction will be a part of the curriculum of the life skills class. All students in life skills will receive this instruction regardless of their participation in the study.

Should you consent for your child to be a research participant, you are consenting for us to collect and use data about your child’s performance for research purposes.

- The sessions will be video recorded if your consent is obtained. Researchers will record your student watching the video instruction and doing the task it teaches. Video recordings will
be kept confidential and may be used for data collection and training for others to use the
intervention.

- The skills that may be taught will include 3 of the following: face washing, applying
deoarant, tying shoes, flossing teeth, brushing teeth, cutting and/or cleaning nails. The skills
that will be taught will be selected based on student needs. You will be notified of the skills your
child will receive instruction in and will have the option to opt out of your child receiving
instruction in any skill.

**Risks/Discomforts**
If you agree for your child to participate in this study, there may be some slight anxiety or
embarrassment. The anxiety may occur when the researcher observes your child preforming a
personal hygiene skill. Your child may also experience frustration in learning a new skill from
the novelty video-based instruction. Preparation on how to use the devices and behavioral
support should minimize the risks associated with the intervention. The researchers will provide
behavioral supports and make the videos fun and engaging. Although the intervention will be a
part of the coursework, the intervention will take place in a private setting for both participants
and non-participants (the nurses office or nurse's restroom) to reduce possible embarrassment.
Additionally, because video recordings will be taken, there is a small risk of a breach of
confidentiality of your child’s identity and participation in the study. All video recordings will
be uploaded immediately to a password-protected drive, erased from the recording device and
accessed only by researchers to minimize this risk.

**Benefits**
There are no direct benefits for your child’s participation in this project. However, we hope your
student will be able to improve daily living skills and complete more activities independently
which they may be able to use as they prepare to live independently.

**Confidentiality**
Your child’s identity will be kept confidential. Your child’s name will not be associated in any
way with the information collected about your child or with the research findings from this
study. The researcher(s) will use a study number or pseudonym instead of your child’s name.
The researchers will not share information about your child. Video recordings will be kept
confidential and only accessed by researchers and shared as you consent on the “Video Release”.
This information will be used by the investigator for a period of three years from the study’s start
date. Your permission indicates that this information will be kept open to the investigator for
that time period, but your child’s name and any identifying information will not be shared or
distributed through this study.

**Compensation**
You will receive no compensation for your child’s participation in this study.

**Participation**
Your child’s involvement is voluntary. If you decide to allow your child to participate, please
fill out the consent to participate form. You are free to decline to have your child participate in
this research study. You may withdraw your child’s participation at any point and it will not
affect your relationship with the school district or the services your child receives.
Questions about the Research
If you have questions regarding this study, you may contact Ryan Kellems directly at 801-422-6674 or Kori Esplin at kesplin@alpinedistrict.org or(801)-610-8134 ext. 134 for further information.

Questions about Your Rights as Research Participants
If you have questions regarding your rights as a research participant contact IRB Administrator at (801) 422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu. If you do not wish for your child to participate in the study, please write no on this form and then sign it and return the form.

Statement of Consent
I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Child’s name: ________________________________

Parent name: ________________________________

Signature: ________________________________ Date: ________

Institutional Review Board
BYU
2-12-2019 2-11-2020
Approved Expires
Consentimiento de los Padres de un menor a ser un Tema de Investigación

Introducción
Se invita a su hijo a participar en un estudio de investigación realizado por Ryan Kellems, PhD Profesor Asistente de Educación Especial en la Universidad Brigham Young y Kori Esplin, un estudiante graduado en la Universidad Brigham Young. Se está llevando a cabo un estudio de investigación acerca de si o no la instrucción de video se puede utilizar para enseñar habilidades para la vida de las personas con discapacidad. Vamos a utilizar videos para enseñar a los estudiantes las habilidades de la vida diaria, como cepillarse los dientes, lavarse las manos y otras habilidades de cuidado personal con el fin de estudiar si es o no una estrategia de enseñanza eficaz. Se está invitando a su hijo a tomar parte en la investigación porque él / ella tiene una discapacidad y tiene el potencial para beneficiarse del uso de estos videos.

Procedimientos
Para obtener información básica sobre su hijo, vamos a tener acceso de sus hijos a otros registros de evaluación, incluyendo pero no limitado a los registros de conducta adaptativa, las puntuaciones de CI y los datos de habilidades para la vida y el IEP. Cualquier información que se obtiene en relación con este estudio y que pueden identificarse con su hijo permanecerá confidencial y será compartida solamente con su permiso. El maestro de su niño va a tener acceso a su IEP y los registros educativos y compartir esta información con nosotros. Su consentimiento para la participación de su hijo incluye su consentimiento para que podamos acceder a los registros educativos de su hijo como se describió anteriormente. No vamos a acceder y utilizar los registros educativos de su hijo para fines de investigación sin su consentimiento para que participen.

- La investigación se llevará a cabo en la escuela de su hijo y se llevará a cabo durante su clase de habilidades para la vida. La investigación se llevará a cabo durante doce semanas, mientras que recogemos datos. Habrá alrededor de tres sesiones por semana y cada sesión debe tener menos de treinta minutos. El estudio durará aproximadamente dos meses. Se anticipa que su hijo participará en el estudio por un total de 8 horas.

- La intervención consistirá en un estudiante de ver una representación de video de una tarea y / o la navegación por el video que provocó y después de completar las tareas observadas en el video. Los videos se muestran a su hijo en un iPad y demostrarán cada paso de la tarea. Después de demostrar, el video le pedirá a su hijo para hacer la tarea. Nos centraremos en tareas de la vida y de higiene diaria, como cepillarse los dientes, usar desodorante y lavar la cara. Vamos a registrar datos sobre la exactitud de su desempeño de la tarea. Debido a la naturaleza de las habilidades de higiene específicas y la necesidad de un lavabo y / o espejo, las sesiones tendrán lugar en el baño de la enfermera y habrá dos o más adultos con su estudiante durante cada sesión. Cada sesión tendrá no más de 30 minutos.

- La instrucción de habilidades para la vida basado en video será una parte del plan de estudios de la clase habilidades para la vida. Todos los estudiantes en habilidades para la vida recibirán esta instrucción, independientemente de su participación en el estudio. En caso de dar su
consentimiento para que su hijo sea un participante en la investigación, usted está consintiendo que recopilemos y utilicen los datos sobre el rendimiento de su hijo para fines de investigación.

- Las sesiones serán de vídeo grabado si se obtiene su consentimiento. Los investigadores registrar a su hijo viendo la instrucción de vídeo y hacer la tarea que enseña. Las grabaciones de vídeo serán confidenciales y se pueden utilizar para la recolección de datos y la capacitación para que otros utilicen la intervención.

- Las habilidades que se pueden enseñar incluirán 3 de los siguientes: lavado de cara, desodorante, atar zapatos, limpiar con hilo dental, cepillarse los dientes, cortar y/o limpiar las uñas. Las habilidades que se enseñarán se seleccionarán en función de las necesidades de los estudiantes. Se le notificará sobre las habilidades en las que su hijo recibirá instrucción y tendrá la opción de optar por que su hijo no reciba instrucción en cualquier habilidad.

**Riesgos / Molestias**

Si está de acuerdo para que su hijo participe en este estudio, puede haber una ligera ansiedad o vergüenza. La ansiedad puede ocurrir cuando el investigador observa a su hijo de preformación una habilidad higiene personal. Su niño también puede experimentar la frustración en el aprendizaje de una nueva habilidad de la instrucción de vídeo basado en la novedad. Preparación sobre el uso de los dispositivos y apoyo conductual debe reducir al mínimo los riesgos asociados a la intervención. Los investigadores proporcionarán apoyo de la conducta y hacer que el vídeo divertido y atractivo. A pesar de la intervención será una parte de los cursos, la intervención se llevará a cabo en un ambiente privado tanto para los participantes y no participantes (la oficina de la enfermera o el baño de una enfermera) para reducir la posible vergüenza. Además, dado que se tomarán las grabaciones de vídeo, hay un pequeño riesgo de una brecha de la confidencialidad de la identidad y la participación de su hijo en el estudio. Todas las grabaciones de vídeo se cargaran inmediatamente a una unidad protegida por contraseña, borrado del dispositivo de grabación y sólo se puede acceder por los investigadores para minimizar este riesgo.

**Beneficios**

No hay beneficios directos para la participación de su hijo en este proyecto. Sin embargo, esperamos que su estudiante será capaz de mejorar las habilidades de la vida diaria y las actividades más completas de forma independiente los cuales pueden ser capaces de utilizar mientras se preparan para vivir de forma independiente.

**Confidencialidad**

La identidad de su hijo será confidencial. El nombre de su hijo no va a estar asociado de alguna manera con la información recopilada sobre su niño o con los resultados de la investigación de este estudio. El investigador(s) utilizará un número de estudio o seudónimo en lugar del nombre de su hijo. Los investigadores no compartirán información sobre su hijo. Las grabaciones de vídeo serán confidenciales y sólo accesibles por los investigadores y compartidas a medida que autoriza en el “Lanzamiento Video”. Esta información será utilizada por el investigador durante un período de tres años a partir de la fecha de inicio del estudio. Su permiso indica que esta información se mantendrá abierta al investigador para ese periodo de tiempo, pero el nombre de
su hijo y cualquier información de identificación no será compartida o distribuida a través de este estudio.

**Compensación**
Usted recibirá ninguna compensación por la participación de su hijo en este estudio.

**Participación**
La participación de su hijo es voluntaria. Si decide permitir que su hijo participe, por favor rellene el formulario de consentimiento para participar. Usted es libre de negarse a que su hijo participe en este estudio de investigación. Usted puede retirar la participación de su hijo en cualquier momento y no va a afectar su relación con el distrito escolar o de los servicios que recibe su hijo.

**Las preguntas sobre la Investigación**
Si tiene alguna pregunta con respecto a este estudio, puede ponerse en contacto con Ryan Kellems directamente al 801-422-6674 o Kori Esplin en kesplin@alpinedistrict.org o (801) -610 a 8134 ext. 134 para obtener más información.

**Preguntas sobre sus derechos como participantes en la investigación**
Si tiene alguna pregunta sobre sus derechos como un administrador de contactos IRB participante en la investigación al (801) 422-1461; A-285 ASB, la Universidad Brigham Young, Provo, UT 84602; irb@byu.edu.
Si no desea que su hijo participe en el estudio, por favor escribir ninguna en este formulario y luego firmarlo y enviar el formulario.

**Declaración de consentimiento**
He leído, comprendido y recibido una copia de este consentimiento y el deseo de mi propia voluntad para participar en este estudio.

**El nombre del niño:**

_____________________________

**Nombre del padre:**

_____________________________

**Fecha de firma:**

____________
Consent to be a Research Subject

My name is Kori Esplin, I am a graduate student at Brigham Young University and I am conducting this research under the supervision of Ryan Kellems, PhD, an Assistant professor, from the Department of Special Education. You are being invited to participate in this research study of the use of video-based instruction to teach life skills to individuals with disabilities. We will use videos to teach students daily living skills like brushing their teeth, washing their hands and other self-care skills in order to study whether or not this an effective teaching strategy. You are being invited because you are a parent of a student that has been invited to take part in the research because he/she has a disability and has the potential to benefit from using these videos. I am interested in finding out about your student’s hygiene skills.

**Procedures**
Your participation in this study will invite you to complete the attached survey. This should take approximately 5 minutes of your time.

**Confidentiality**
Your participation will be kept confidential. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. You and your child’s name will be replaced with pseudonyms to ensure your privacy. The information that is collected will be stored in a locked filing cabinet and/or on a password protected computer and may be used by the investigator for a period of three years from the study’s start date. Your permission indicates that this information will be kept open to the investigator for that time period, but your name and any identifying information will not be shared or distributed through this study.

**Risks/Discomforts**
There are minimal risks to parents and teachers.

**Compensation and Benefits**
You will not be paid for being in this study. The benefits may impact society by helping increase knowledge about teaching individuals with disabilities using video instruction.

**Participation**
You do not have to be in this study if you do not want to be. You do not have to answer any question that you do not want to answer for any reason. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to your relationship with the school district.

**Questions about the Research**
We will be happy to answer any questions you have about this study. If you have further questions about this project or if you have a research-related problem you may contact me, Kori Esplin at kesplin@alpinedistrict.org (801-610-8134 ex 134) or my advisor, Ryan Kellems at rkellem@byu.edu (801-422-6674). If you have any questions about your rights as a research participant you may contact the IRB Administrator at A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu; (801) 422-1461. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.
If you choose to participate, please complete the attached survey and return it by ___________. Thank you!

**Statement of Consent**
I have read and understood the above consent and desire of my own free will to participate in this study.

Name (Printed): ______________________ Signature: ______________________ Date: __________
El Consentimiento para ser Sujeto de Investigación

Mi nombre es Kori Esplín, soy un estudiante graduado en la Universidad Brigham Young y estoy llevando a cabo esta investigación bajo la supervisión de Ryan Kellems, PhD, profesor asistente, del Departamento de Educación Especial. Se le invita a participar en este estudio de investigación del uso de la instrucción basada en video para enseñar habilidades para la vida de las personas con discapacidad. Vamos a utilizar videos para enseñar a los estudiantes las habilidades de la vida diaria, como cepillarse los dientes, lavarse las manos y otras habilidades de cuidado personal con el fin de estudiar si es o no una estrategia de enseñanza eficaz. Se le invita porque usted es un padre de un estudiante que ha sido invitado a participar en la investigación, ya que él / ella tiene una discapacidad y tiene el potencial para beneficiarse del uso de estos videos. Estoy interesado en saber acerca de las habilidades de higiene de su estudiante.

Procedimientos

Su participación en este estudio le invitará a completar la encuesta adjunta. Esto debe tomar unos 5 minutos de su tiempo.

Confidencialidad

Su participación será confidencial. Cualquier información que se obtiene en relación con este estudio y que se pueden identificar con usted seguirá siendo confidencial y será compartida solamente con su permiso. Usted y el nombre de su hijo será reemplazado con seudónimos para garantizar su privacidad. La información que se recoge se almacena en un armario cerrado con llave y / o en un equipo protegido con contraseña y puede ser utilizado por el investigador durante un periodo de tres años a partir de la fecha de inicio del estudio. Su permiso indica que esta información se mantendrá abierta al investigador para ese periodo de tiempo, pero su nombre y cualquier información de identificación no será compartida o distribuida a través de este estudio.

Riesgos / Molestias

Hay riesgos mínimos para los padres y profesores.

Compensación y beneficios

No se le pagará por participar en este estudio. Los beneficios pueden impactar la sociedad, ayudando a aumentar el conocimiento sobre la enseñanza de las personas con discapacidad mediante la instrucción de video.

Participación

Usted no tiene que participar en este estudio si no quiere estar. Usted no tiene que responder a cualquier pregunta que usted no desea responder por cualquier motivo. Usted tiene el derecho de retirarse en cualquier momento o negarse a participar en su totalidad y sin poner en peligro su relación con el distrito escolar.

Las preguntas sobre la Investigación

Estaremos encantados de responder a cualquier pregunta que tenga sobre este estudio. Si tiene preguntas adicionales sobre este proyecto o si tiene un problema relacionado con la investigación puede ponerse en contacto conmigo, Kori Esplín en kesplin@alpinedistrict.org (801-610-8134 ex 134) o mi asesor, Ryan Kellems en rkellemes@byu.edu (801-422-6674). Si usted tiene alguna pregunta sobre sus derechos como participante en la investigación puede comunicarse con el
Administrador del CEI en A-285 ASB, la Universidad Brigham Young, Provo, UT 84602; irb@byu.edu; (801) 422-1461. El IRB es un grupo de personas que revisan los estudios de investigación para proteger los derechos y el bienestar de los participantes en la investigación. Si decide participar, por favor complete la encuesta adjunta y enviarlo por __________. ¡Gracias!

**Declaración de consentimiento**
He leído y comprendido este consentimiento y el deseo de mi propia voluntad para participar en este estudio.

**El nombre del niño:** ________________________________
**Nombre del padre:** ________________________________
**Firma:** __________________________________________
**Fecha de firma:** _________
Child Assent (7-14 years old)

What is this research about?
My name is Ryan Kellems, and I work at BYU. I want to tell you about a research study I am doing. A research study is a special way to find the answers to questions. We are trying to learn more about how you learn things by watching videos. You are being asked to join the study because you have a disability and we think you could learn something from these videos.

If you decide you want to be in this study, this is what will happen.

-We will ask you to do something that you might not know how to do. It’s okay if you can’t, we just want you to try.

-We will show you a video on an iPad telling you how to do what we’re asking you. Just watch the video and listen to what it says. Then we’ll ask you to do what the video showed you. We will do this in a bathroom or in the nurse’s office because we will be learning things that you would normally do in a bathroom like brushing your teeth or combing your hair. There will be a couple adult helpers there to help you watch the videos and do what it is asking. All of this will probably take about 20 minutes. We’ll come back 20 times and you’ll watch the video and then do what the person in the video does. We will do this for about 15 minutes in your life skills class for a month or two. What you will do may look a little like this:

You will watch a video on an iPad and then do what it asks you to do, which could be something like brushing your teeth or tying your shoes. There will be helpers with you.

-Everyone in your class will watch the same videos and will be asked to do the same things as you. You will not miss anything you will need to do in class by being in this study. If you decide to be a part of this study, we will video record you watching the videos and doing what they say to help us learn about how you are learning. You will be recorded every time you do the task, for about 15 minutes in life skills class for 1-2 months.
**Can anything bad happen to me?**
You may get embarrassed or nervous when we watch you do what the video says. If you don’t want to do what we ask you to do, you can tell us and you can stop.

**Can anything good happen to me?**
We don’t know if being in this study will help you. But we hope to learn something that will help other people someday.

**Do I have other choices?**
You can choose not to be in this study.

**Will anyone know I am in the study?**
We won't tell anyone you took part in this study. When we are done with the study, we will write a report about what we learned. We won't use your name in the report.

**What happens if I get hurt?**
If you get hurt during the study, your parent(s) will know what to do- we talked to them too.

**What if I do not want to do this?**
You don't have to be in this study. It's up to you. If you say yes now, but change your mind later, that's okay too. All you have to do is tell us.

Before you say yes to be in this study; be sure to ask Ryan to tell you more about anything that you don't understand.

If you want to be in this study, please sign and print your name.

Name (Printed): __________________________ Signature: __________________________ Date: _______
Research Survey

The purpose of this study is to investigate the use of video instruction to teach hygiene and other daily living skills to students with disabilities. Please take this survey to share with us your child’s current skill levels. If you choose to fill out this survey, please be sure to read and sign the “Consent to be a Research Subject” and return it with this survey.

Child Name: ____________________________

Parent Name: ____________________________ Date: ____________________________

Please mark the box that most accurately describes how your child can do each of the following skills:

<table>
<thead>
<tr>
<th>Skill</th>
<th>My child can do this skill….</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brushing Teeth</strong></td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td><strong>Flossing</strong></td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td><strong>Dressing</strong></td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td><strong>Combing/doing hair</strong></td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td><strong>Washing face</strong></td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td><strong>Washing hands</strong></td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td>Cutting and cleaning nails</td>
<td>Independently (without reminders)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Applying Deodorant</td>
<td>Independently (without reminders)</td>
</tr>
</tbody>
</table>

If you feel you need to clarify any of your responses, please do so on the following page. E.g., my child can dress themselves, but sometimes needs help with buttons or zippers.

Comments: ____________________________

______________________________

______________________________

______________________________

______________________________

Does your child engage in any problem behaviors related to hygiene? (Example of problem behaviors are biting nails, picking nose, wetting pants, etc.)

Yes  No

If yes, please describe:

______________________________

______________________________

______________________________

______________________________

Other hygiene or daily living skills concerns I have for my child:

______________________________

______________________________

______________________________

______________________________

Thank you for your participation!
Encuesta de Investigación

El propósito de este estudio es investigar el uso de la instrucción de video para enseñar higiene y otras habilidades de la vida diaria de los estudiantes con discapacidades. Por favor, tome esta encuesta para compartir con nosotros los niveles actuales de su hijo. Si se opta por llenar esta encuesta, por favor asegúrese de leer y firmar el “Consentimiento para ser sujeto de investigación” y devolverlo con esta encuesta.

Nombre de niño: _______________________________

Nombre de los padres: __________________________

Fecha: __________________

Por favor marque la casilla que mejor describe cómo su hijo puede hacer cada una de las siguientes habilidades:

<table>
<thead>
<tr>
<th>Habilidad</th>
<th>Mi niño puede hacer esta habilidad ....</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lavando los dientes</td>
<td>Independientemente (sin recordatorios)</td>
</tr>
<tr>
<td>uso de hilo dental</td>
<td>Independientemente (sin recordatorios)</td>
</tr>
<tr>
<td>Vendaje</td>
<td>Independientemente (sin recordatorios)</td>
</tr>
<tr>
<td>Peinar / el pelo haciendo</td>
<td>Independientemente (sin recordatorios)</td>
</tr>
<tr>
<td></td>
<td>Independientemente (sin recordatorios)</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td><strong>Lavando la cara</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lavándose las manos</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Cortarse y limpiarse las uñas</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Desodorante aplicar</strong></td>
<td></td>
</tr>
</tbody>
</table>

Si usted siente que necesita para aclarar cualquiera de sus respuestas, puede hacerlo en la siguiente página. Por ejemplo, mi hijo puede vestirse por sí mismos, pero a veces necesita ayuda con botones o cremalleras.

**Comentarios:**

¿Su hijo lleva a cabo ninguna problemas de comportamiento relacionados con la higiene? (Ejemplo de problemas de comportamiento están mordiendo las uñas, nariz de la cosecha, mojando los pantalones, etc.)

**si**  **no**
En caso afirmativo, describa:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Otros problemas de higiene o de vida diaria de habilidades que tengo para mi hijo:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

¡Gracias por su participación!
APPENDIX G

Social Validity Survey

(Participant)

1. What did you think about watching the videos on the iPad?

2. What did you think about watching the videos to help you do what it was asking you to do?

3. Do you think watching the videos helped you to learn what it was showing you how to do? Why or why not?

4. Would you like watching more videos at home or at school showing you how to do things?

5. Who have you told about using the iPad at school?
Social Validity Survey

(Parent)

1. How do you think your child enjoyed watching the videos on the iPad?

2. What do you think they thought about using the iPad to help them learn skills?

3. What impact did watching the videos have on their performance of the skills they worked on at home?

4. Is this something you can see them using in the future? Why or why not?

5. Was it socially acceptable for them to watch the videos while they practiced these skills?
Encuesta Validez Social

(Padre)

1. ¿Cómo cree que su hijo disfrutó viendo los videos en el iPad?

2. ¿Qué le parece que pensaban acerca del uso de la Almohadilla para ayudarles a aprender habilidades?

3. ¿Qué impacto tuvo viendo los videos tienen sobre su desempeño de las habilidades que trabajaron en casa?

4. ¿Es esto algo que usted puede verlos usando en el futuro? ¿Por qué o por qué no?

5. ¿Fue socialmente aceptable para ellos para ver los videos mientras practicado estas habilidades?
RESEARCH OPPORTUNITY
PARTICIPANTS NEEDED

We need your help!

We are doing research to explore the use of video instruction in teaching daily living skills to individuals with disabilities. Participation would include researchers observing video instruction that will take place during the Life Skills class at __________. Participants will be asked to watch a video and complete a task.

Your participation would be greatly appreciated!

Who:
-Ages 8-17
-Have a disability (i.e. Autism, Intellectual Disability, etc.)

Where:

When:
Life Skills Class (B4)

IF INTERESTED, CONTACT:
Kori Esplin

Ryan Kellems
OPORTUNIDAD DE INVESTIGACIÓN
PARTICIPANTES NECESARIOS

Necesitamos tu ayuda!

Estamos investigando para explorar el uso de la video instrucción en la enseñanza de habilidades de la vida diaria a personas con discapacidades. La participación incluiría a los investigadores que observaran las instrucciones en video que se llevarán a cabo durante la clase Life Skills en __________. Se les pedirá a los participantes que miren un video y completen una tarea.

¡Su participación será muy apreciada!

Quién:
-Siglos 8-17
- Tener una discapacidad (es decir, autismo, discapacidad intelectual, etc.)

Donde:

Cuando:
La Clase de Life Skills (B4)

SI ESTÁ INTERESADO, PÓNGASE EN CONTACTO:
Kori Esplin
Ryan Kellems
APPENDIX I

Video Release Form

Video Release Form

As part of this project, I will be making video recordings of your child during your participation in the research. Please indicate what uses of this video you are willing to permit, by initialing next to the uses you agree to and signing at the end. This choice is completely up to you. I will only use the video in the ways that you agree to. In any use of the video, your child will not be identified by name.

- Video can be studied by the research team for use in the research project.
- Video can be used for scientific publications.
- Video can be shown at scientific conferences or meetings.
- Video can be shown in classrooms to (elementary/middle/high school/college) students.
- Video can be shown in public presentations to non-scientific groups.
- Video can be used on television or the audio portion can be used on radio.
- Video can be posted to a website (i.e., YouTube)

I have read the above descriptions and give my express written consent for the use of the video as indicated by my initials above.

Name: __________________________ Signature: __________________________ Date: ________

Institutional Review Board
BYU
2-12-2019 2-11-2020

Approved Signed
Formulario de Autorización de Video

Como parte de este proyecto, Voy a hacer grabaciones de vídeo de su hijo durante su participación en la investigación. Por favor, indique qué usos de este vídeo que está dispuesto a permitir, por sus iniciales al lado de los usos que está de acuerdo y firmar al final. Esta elección es totalmente suya. Sólo voy a usar el vídeo de la manera que usted acepta. En cualquier uso del video, su hijo no será identificado por su nombre.

☐ El vídeo puede ser estudiado por el equipo de investigación para su uso en el proyecto de investigación.

☐ El vídeo puede ser utilizado para las publicaciones científicas.

☐ El vídeo puede ser mostrado en congresos o reuniones científicas.

☐ El vídeo puede ser mostrado en las aulas a los estudiantes (la escuela secundaria /primaria/media/universitarios).

☐ El vídeo puede ser mostrado en presentaciones públicas a grupos no científicos.

☐ El vídeo puede ser utilizado en la televisión o la parte de audio se puede utilizar en la radio.

☐ El vídeo puede ser enviado a un sitio web (por ejemplo, YouTube)

He leído las descripciones anteriores y dar mi consentimiento expreso y por escrito para el uso del vídeo como se indica por mis iniciales arriba.

Nombre: _________________________ Firma: _________________________ Fecha: ________
# APPENDIX J

## Treatment Fidelity Checklist

<table>
<thead>
<tr>
<th>Step 1. Targeting a Behavior for Teaching</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers identify students who would benefit from and be appropriate for the study.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Researchers define and describe the target behavior so that it is observable and measurable.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2. Having the Correct Equipment</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers acquire a video recording device</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Researchers become familiar with the equipment (iPad, etc.) and are comfortable using it.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Researchers become familiar with the app used, Task Analysis, and are comfortable using it.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3. Planning for the Video Recording</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers create a task analysis from initial video.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Researchers write a script for voiceover, detailing exactly what needs to be said and/or done throughout each step of the video. | X |

3. Researchers observe the learner completing the task to determine if they can do it. | X |

<table>
<thead>
<tr>
<th>Step 4. Collecting Baseline Data</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Present learner with the task.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Learners complete as much of the skill as possible.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Researchers collect baseline data.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 5. Making the Video</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers select the model.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Researchers record a video that accurately reflects the steps of the task analysis, following the script.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Researchers edit the video in Snapguide and/or iMovie and remove any errors and prompts.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Researchers complete voiceovers, if necessary.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Researchers have a complete video prompting intervention to use with students. | X |  |

<table>
<thead>
<tr>
<th>Step 6. Arranging the Environment for Watching the Video</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers identify the environment where the video will be watched, considering when and how it will be used within natural routines.</td>
<td>X</td>
<td></td>
<td></td>
<td>School bathroom- closest approximation to home bathroom</td>
</tr>
<tr>
<td>2. Researchers ensure that the materials for the performance of the task match those on the video to the extent possible.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Participating students have close access to all materials needed for the study.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Materials and settings provided for participants are similar to those modeled in the video.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 7. Showing the Video</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers allow the learner to watch the video an appropriate number of times before expecting the learner to use the target behavior.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Researchers ensure that the video is stopped after each step of the task analysis so the learner can perform the target behavior independently. | X |

3. A 10 second waiting time is given to participants to navigate the video before a verbal prompt is delivered to navigate the video using the iPad. | X |

4. No verbal prompts are given to do the task modeled in the video. | X |

6. Students participate in the intervention two to three times per week. | X | 4-5 times |

<table>
<thead>
<tr>
<th>Step 8. Monitoring Progress</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Observers collect data on the performance of the target behavior, noting the specific steps of the task learners were able to do independently.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. If after collecting data on three to five occasions, learners are not making progress, researchers begin troubleshooting (see Step 9). If learners are making progress, instruction is continued until they have reached maximum proficiency or criterion performance.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Adapted from Kellems & Morningstar (2012) Using video modeling delivered through iPods to teach vocational tasks to young adults with autism spectrum disorders (ASD)