Using Video Modeling to Elicit a Functional Skill for a Student with ASD

BY

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Abstract

This study explores how the use of video-modeling with children and youth who have a diagnosis of an Autism Spectrum Disorder (ASD) can assist with improving social and communication skills, displaying desired behavior(s), and improving academic skills. It specifically focuses on using peer video-modeling to elicit the functional skill of washing hands at appropriate times for a thirteen-year-old male. Video-modeling is an evidence-based practice that is "hypothesized to tap into the visual learning style of individuals with autism" (Reichow & Volkmar, 2010).

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Chapter I

Introduction

  The use of video modeling consists of an individual watching a video, rather than live scenarios, of adults, peers, or himself or herself displaying the desired behavior or behaviors (Delano, 2007; Hermansen & McCoy, 2007). Video modeling assists the individual in memorizing, imitating, and generalizing the targeted behaviors (Dowrick, Hitchcock, & Prater, 2007; Neumann, 2004). Research shows that video modeling is an evidence-based intervention and has been very effective in increasing daily living skills, social skills, desired academic outcomes, and decreasing inappropriate behaviors, such as tantrums and aggressive pushing (Banda, Matuszny, & Turkan, 2007; Akullian & Bellini, 2007). Graetz, Mastropieri, and Scruggs (2006) note that this intervention is appealing to teachers and others working with students who have special needs because it is cost effective and doesn't require a lot of training or time. Ayres and colleagues (2009) discuss a benefit of an intervention that uses video-modeling called Computer Based Video Instruction (CBVI). They state that CBVI can foster independence in students and allow teachers to become more of a facilitator when using this intervention (Ayres, Maguire, & McClimon, 2009).   Video-modeling is also documented as fulfilling the Individuals with Disabilities Education Act (IDEA) of 2004 requirement that schools and parents work together to determine how to deal with deficits in the area of daily living skills (Carothers & Taylor, 2004).

  Research question. The topic of this project is the use of video modeling as an intervention to elicit a desired behavior, specifically the functional skill of hand washing. The research question being asked is: Will a student with autism and significant challenges acquire a skill using video modeling as an intervention? This student is in a self-contained resource room

for the majority of the day. He does not consistently display functional self-care skills, such as hand washing, bathing, and using the bathroom independently. The intervention chosen to improve the display of hand washing is a form of modeling called "video-modeling." Current research reveals that video-modeling is an effective strategy which can be used to decrease inappropriate behaviors, elicit new behaviors and/or responses, teach functional, social, and even academic skills, and provide prompts (Akullian & Bellini, 2007; Delano, 2007).

Chapter II

Review of Literature

Video modeling has become an increasingly popular form of positive behavior support in recent years (Sturmey, 2003). Sturmey (2003) speculates that this can possibly be attributed to the fact that the use of video is widespread among youth and adults for entertainment and leisure, so it makes sense to utilize it in a way that assists with changing human behavior. It has become especially popular in assisting with changing the behavior of those who have Autism Spectrum Disorder (ASD). Those with ASD tend to do comparatively better with visual spatial skills as opposed to verbal skills (Grandin, 1995). The effectiveness of video-modeling could very likely be attributed to this tendency.

This review of literature was conducted using Academic Search Premier and Wilson OmniFile full text select databases to search for peer-reviewed articles published from January of 2000 until July of 2010. Various search terms were used in searching the databases such as "video-modeling for students with autism," "video-modeling," "autism spectrum disorders," and "video-modeling and functional skills." Articles and books used were primarily published and edited in the United States of America, with the exception of one article that was published in Australia.

Overview of autism. Autism, often referred to as an Autism Spectrum Disorder (ASD), is a "broad spectrum of disorders caused by neurological impairments" (LaCava, Myles, & Simpson, 2008, p.4). Autistic disorder is one of five identified Pervasive Developmental Disorders (PDD) (American Psychiatric Association, 2000). The clinical characteristics of autism consist of impairments in social interaction, communication, and "restricted, repetitive, and stereotyped patterns of behavior, interests, and activities" (Bregman, 2005, p. 12).   Those

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with ASD may also display attention problems, self-stimulatory, as well as other behavior difficulties, heightened sensitivity to sensory stimulus, sensory impairments, and problems with generalization (LaCava, et al., 2008; Bregman, 2005). The behavior difficulties may consist of self-injurious behavior and or aggressive behaviors (Ben-Arieh et al., 2005). Ben-Arieh et al. (2005) also note that those diagnosed with autistic disorder are moderately to severely impaired and typically have an IQ that falls within the moderate to severe range for mental retardation. Those with an ASD may also experience difficulty with acquiring "Theory of Mind" (ToM) (Garfield, Perry, and Peterson, 2001). Carothers and Taylor (2004) note that individuals with autism may have difficulty with performing tasks independently and require intensive instruction to display daily living skills.

Visual learning styles and supports. Those with autism often learn visually and are generally more successful when taught using visual supports (Myles & Simpson, 2008). A few benefits of these supports are that they can reduce anxiety, allow individuals to focus on the message, and make abstract concepts more concrete (Gagie & Rao, 2006).   In her book, *Solving Behavior Problems in Autism: Improving Communication with Visual Strategies*, Linda Hodgdon (2007) also supports the effectiveness of using visual strategies for students with an ASD. In reference to these individuals she says, "They tend to be visual learners living in a very auditory world" (Hodgdon, 2007, p.65).

Forms of communication that can be seen are considered to be visual tools and supports. Examples of these are gestures and body movements, pictures, labels, signs, calendars, and printed instructions. These supports can be used to foster communication, give information, support a student through routines, teach skills, prevent problems, and as an intervention when a

problem arises (Hodgdon, 2007).   Modeling is one form of visual support that can be used to teach skills.

Video modeling. Reichow and Volkmar (2010) conducted an evaluation of sixty-six studies in which different interventions were used to improve social behavior of individuals with autism ranging from preschool age into adulthood. Essentially, they evaluated which practices have the best evidence for being considered evidence-based using criteria described in a previously written article by Cicchetti, Reichow, and Volkmar (2008). One of the interventions evaluated was video-modeling. The authors were not able to apply the criteria of evidence-based practice to video-modeling as an intervention for pre-school-aged children because the studies that were evaluated used the intervention in combination with another method. However, Reichow and Volkmar (2010) state that video-modeling for school-aged children meets the criteria for being identified as an evidence-based practice.

Graetz, Mastropieri, and Scruggs (2006) note that there are different types of modeling, including video modeling, video self-modeling, and in-vivo. Video modeling is when the child views others demonstrating the target behavior, while in video self-modeling a student views himself or herself demonstrating the target behavior. In-vivo modeling is basically role-playing, and the student views others in person as appropriate behaviors are being demonstrated (Graetz, Mastropieri, & Scruggs, 2006). Point-of-view models show what would be seen if the person were engaging in the target behavior, such as hands performing a specific task. Mixed models combine any two or more of the other model types (Hermansen & McCoy, 2007).Video priming is when a video is used to signal an event, such as a transition, in order to make changes and activities more predictable to students (Schreibman, Stahmer, & Whalen, 2000).   Another use of video-modeling is Computer Based Video Instruction (CBVI), which utilizes the computer and

prompts students to watch a video and interact with the program and practice targeted skills, rather than merely watching a video clip of the targeted skill (Ayres et al., 2009).

   Studies about video modeling. In recent years, various studies have been conducted on the effects of video-modeling, in particular, with regards to children with an ASD. Video-modeling uses Electronic Screen Media (ESM), which is defined as any media for the television screen or computer monitor (Albert & Shane, 2008). Albert and Shane (2008) conducted a study on the effectiveness of using electronic screen media (ESM) for persons with autism. The researchers surveyed 89 households which have at least one child under eighteen years of age with autism living in the home. The results show that when the children were given the opportunity to choose what to do during leisure time throughout weekends, the majority chose to do something related to media, as opposed to other activities (playing outside, reading, listening to music, and so forth.). The results of the survey also reveal that more than 50% of the children with an Autism Spectrum Disorder occasionally displayed some form of imitation while watching screen media (Albert &Shane, 2008). The results of a study done by Calvert and Moore (2000) show that children with an ASD were attentive 97% of the time when a computer was used to present material as compared to 62% of the time when a teacher was used.

   Dowrick, Hitchcock, and Prater (2003) reviewed eighteen different studies that used video self-modeling in school-based settings. Seventy-two percent of the students in the studies were identified as having disabilities. The researchers state the outcomes of the studies revealed video self-modeling to be successful in supporting communication, behavior, and academic performance of students within an educational environment. Dowrick et al. (2003) also note that the researchers in the studies they reviewed used video self-modeling to address functional skills.

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Hermansen and McCoy (2007) reviewed a variety of literature on video-modeling. Each of the studies they explored had at least one person with an ASD. The forms of video modeling in the studies involve adult models, peer models, self-models, point-of-view models, and mixed models. The overall results of their review show that video-modeling, in general, was an effective intervention for individuals with autism. The authors state that self and peer video-modeling, in particular, were observed to have the most influence on those having an ASD diagnosis (Hemansen & McCoy, 2007).

Akullian and Bellini (2007) conducted a meta-analysis for 23 single-subject design studies which used video-modeling for individuals with autism from ages three to twenty years of age. The studies they reviewed were conducted from 1980 to 2005. They found that video-modeling, including video self-modeling, are effective interventions for those with an ASD. The analysis also shows that this intervention encourages skill acquisition, as well as maintenance and generalization of skills to other settings. Delano's (2007) article, "Video Modeling Interventions for Individuals with Autism" reviews studies conducted from 1985 to 2005 on this topic. Each of the nineteen studies had participants with an ASD, and the majority used either peer or adult modeling or self-modeling. The author states that in most of the studies video-modeling was used to teach social-communicative skills, while it was used to teach functional skills in two investigations. Finally, Delano (2007) summarizes her findings by saying it is not clear based on her research whether or not video-modeling is more or less effective as compared to other models for teaching those individuals with autism. She adds that video-modeling is highly appropriate for individuals with autism (Delano, 2007).

Studies conducted on using video-modeling to teach functional skills to students with autism have shown this intervention to be successful, in general (See Table 1 for studies about

video modeling). In a study done by Ayres et al. (2009), researchers address whether or not three elementary-school students with autism can learn a functional skill using CBVI, and then generalize the learned skill to the real life, or in-vivo, setting without using any additional instruction or intervention. The functional skills addressed were preparing soup, making sandwiches, and setting the table. The school was used for intervention and in-vivo settings for two of the students, while the home environment was used for the other student. The CBVI consisted of the students using software in which they watched a video model of the targeted skill in first person perspective, meaning only the hands were shown completing the tasks, and then were allowed to practice the skill using a simulation on the software. The students completed two five-minute sessions per day and received no prompts or feedback from anyone while participating in the intervention. A new skill was introduced once 90% performance accuracy had been obtained for the previous skill. Results show that two of the three students were considered to be successful in displaying all three targeted skills in-vivo and using CBVI, however one student displayed success in only two of the three targeted skills, as the school year ended before the third could be assessed. Overall, this study shows CBVI, which utilizes video-modeling, to be a successful tool in teaching acquisition and generalization of functional skills (Ayres et al., 2009).

Lutzker, Shipley-Benamou, and Taubman (2002) conducted a study using video-modeling to teach three five-year-olds a variety of functional skills including making orange juice, preparing a letter to be mailed, putting a letter in a mailbox, setting the table, cleaning a fish bowl, and feeding a cat. Two of the three students focused on learning three skills, while the third focused on learning two skills. Two of the students received candy as a reinforcer for successful task completion, defined as completing the task with 100% accuracy, while the third

student received access to a preferred toy. The video-models in this study also used first person perspective. The main differences between the intervention used for this study compared to the one used in the study conducted by Ayres et al. (2009) is that the students merely watched a video of the targeted skill, and the video began with a short five second clip of each student's favorite cartoon in order to grasp their attention. Throughout the intervention phase, researchers conducted three twenty-minute sessions per week with each student. The video of the targeted skill was watched once per session, and the child would then be handed the materials needed to perform the skill and prompted to complete the task. Researchers conducted a no-video phase and a one-month follow-up for the targeted tasks after skill acquisition was reached. In two of the three cases, these phases were conducted in the home and school environment to determine if task performance was maintained, while in one case the one-month follow-up was conducted in the school environment only. Results of this study show that all three children were able to obtain the targeted skills and continue to display them in both the home and school environments, even after the intervention had been removed (Lutzker et al., 2002).

Brannigan, Cuskelly, and Keen (2007) discussed a more unique approach to video-modeling. The authors conducted this study in Australia and used video-modeling, combined with preferred reinforcers/rewards, as well as picture cue cards in at least one instance, in order to potty train five children, ranging from four to six years of age. Participants were given reinforcement for each step of the toileting process that was followed and ultimately given a reward if they actually used the commode appropriately. Children would use the bathroom six to seven times per day, on average, and would watch the video prior to each toileting session. The type of video model used in this study was different from those used in the studies conducted by Ayres et al. (2009) and Lutzker et al. (2002). In this study, a six-minute long animated toilet

training video was used. Music, color, sound, and animated characters, as opposed to the typically utilized human models, were a part of the video which displayed the different steps followed by both males and females when using the bathroom. Results from this study reveal that the use of the toilet to urinate increased, and was maintained at follow-up for those children who watched the video model throughout the intervention phase. Also noted is that two of the children generalized the newly learned behavior to a new setting. While none of the participants were considered to be completely "potty-trained" by the end of the study, all who participated in the study for the entire duration showed increased toilet use (Lutzker et al., 2002).

In 1994, Alcantara explored the use of video-modeling, which was referred to in the article as "videotape instructional package," to teach three eight and nine-year-olds the functional skill of grocery-purchasing. The viewing of the video took place in the school that the students attended, while three local grocery stores were used to practice the skill. A book containing pictures of ten different items from the grocery store was used to show students what to buy during baseline and follow-up sessions. A task analysis was also conducted to determine which steps the participants would need to complete in order to perform the overall task. During the first part of the intervention, three to five sessions were conducted each week. The students would view the video that depicted the purchasing of whichever item they would be asked to purchase in the store. After viewing the video, the students would go to their prospective grocery store and attempt to buy the item. An instructor would go alongside them and provide a verbal reminder, if needed, by asking the student what he or she needed to do next. Reinforcement occurred in the form of verbal praise whenever a correct step was completed and students were able to keep items if they made it to the final purchasing stage. The second part of the intervention was referred to as videotape instruction plus in vivo training and was conducted

just as the first part except the researchers used the least-intrusive prompting system if the reminder was not effective. Researchers also conducted a follow-up phase in which no prompts were issued. Results show that students were able to purchase requested items independently, primarily, by the end of the study. The authors note that using the video alone did not accomplish the acquisition of all the steps needed to complete the purchase, but adding the in vivo-training in the second part of the intervention assisted in this goal. Also noted is that students were able to generalize the skill to the third grocery store environment after using the other two stores for training and intervention. Overall, the combination of video-modeling, an established least-intrusive prompting system, and reinforcement were successful in teaching a functional skill to students with ASD in this study (Alcantara, 1994).

Cihak and Schrader (2008) approach video-modeling differently from the previously discussed articles regarding functional living skills. In their article about using video modeling to improve desired behaviors of children diagnosed with ASD, Banda et al. (2007) stated that research establishes video modeling is more effective in enhancing and generalizing learned skills than in-vivo modeling. Cihak and Schrader (2008) set out to determine if video-modeling or video self-modeling was more effective in teaching chained vocational skills. In their study, these skills were taught to four males, aged sixteen to twenty-one years old, with ASD. The intervention was used to teach the tasks of preparing family packs (basically place settings in a bag), preparing first aid kits, making copies, and sending a fax. Each of the students were taught two of these tasks using an adult model, who was a male and was not known by the participants, for one video and a self-model for the other. The videos were watched twice a day in the school setting, which is where the students were expected to perform the tasks. Immediately after the video was over, the participant would be asked to complete the task and shown the video once

more if any steps were omitted. Researchers used a least-to-most prompting system to ensure accurate completion of the task if students continued making errors after the second viewing occurred. After the participants had acquired the targeted skills, researchers conducted follow-up and maintenance observations. Results of the study show that all four males acquired the skills and maintained them throughout the follow-up phase. While both video-modeling and self-modeling were proven to be effective interventions for teaching the aforementioned vocational tasks, there were some slight differences noted. One student acquired the skills quicker using self-modeling, while two only acquired the skills somewhat faster, and there was no difference noticed for the fourth participant. All four students expressed that they preferred the self-model as opposed to the adult-model. The authors state that both models were "equally effective" in teaching skills which had previously not been demonstrated by the participants (Cihak & Schrader, 2008).

Bourret and Murzynski (2006) conduct a somewhat similar study to that conducted by Cihak and Shrader, except the focus is different in comparison. The research of Bourret and Murzynski used video-modeling with least-to-most intrusive prompting to determine if this is more effective than merely using least-to-most prompts to teach chained daily-living skills to two males, aged eight and nine years old. The setting of the study was the participants' home. The functional skills targeted were folding a shirt, folding a pair of pants, making a peanut butter and jelly sandwich, and making juice. In order to compare the effectiveness of least-to-most prompting to the use of this combined with video-modeling, the researchers used one intervention in two of the skills for each participant and the combined intervention with the other two skills for each participant. The interventions were conducted one to two times per week from sixty to ninety minutes each. The participants received three to five trials within this time

period. When using the combined intervention, the participant was shown the video then

prompted to complete the task. The instructor would prompt the student using the established

least-to-most intrusive prompt system whenever a step was conducted incorrectly. This was also

the same procedure for the skills taught using the prompt system only. The researchers note that

praise and edibles were given as reinforcement at the end of each trial, whether or not the student

completed the tasks with 100% accuracy. Results of the study show that both participants

acquired the targeted skills quicker using the combined intervention of video-modeling and

prompting. They also note that significantly less prompting was required when using video-

modeling (Bourret & Murzynski, 2006).

Studies on the use of video-modeling for children with autism have primarily been

conducted to determine if this intervention was successful in improving social behavior and

language skills (Lutzker et al., 2002). In the article, "Show Time," by Graetz et al. (2006), the

effectiveness of video self-modeling to decrease specific behaviors is discussed. A thirteen-year-

old boy with autism displayed the behaviors of arm-flailing and hand-wringing, which often led

to more violent behaviors. The authors video-taped the student when he was displaying both the

desired and undesired behaviors. It is important to note that in typical modeling situations,

inappropriate behavior is not necessarily the focus. Graetz et al. (2006) concluded that the

participant did need to see the undesired behaviors as well, however. Whenever the boy would

become agitated, the video of him displaying the target behaviors would be shown. In this study,

the participant's teacher and mother reported that the inappropriate behaviors decreased and that

modeling was successful (Graetz et al., 2006).

Buggey (2005) performed a study involving video self-modeling on ten children, ages

five through eleven, who have a diagnosis of an autism spectrum disorder. Modeling was used

for a variety of purposes in this study including encouraging social initiations, decreasing

duration of tantrums, decreasing occurrences of pushing, and encouraging language. The

students would individually view themselves displaying the desired behaviors in a video on a

daily basis for ten days. Each student was successful in demonstrating the target behaviors

throughout the modeling intervention. One example of this success is that the duration of

tantrums for a seven-year-old male decreased from 35 minutes to approximately five minutes

throughout the time video self-modeling was utilized (Buggey, 2005).

In a study conducted by Poulson, and colleagues (2007), video-modeling was also proven

to be a successful intervention in teaching pre-school students a generalized repertoire of helping

adults. The target behavior for the students was to verbally offer and manually attempt to help

an adult in appropriate situations. Examples of these situations were wiping a board or table,

setting up an activity, or locating specific items. The four children, ages four to six years old,

involved in this study initially showed no emission of helping responses during baseline trials.

To prompt a response of offering assistance, the adult may say, "Boy this table is dirty!" This

occurred throughout the training trials. If the child did not initiate help, then a thirty to sixty

second video clip of a young child offering help to an adult in the same situation was shown. If

the child still did not emit the correct response, the adult would verbally or manually prompt the

correct response. If there was still no success, the video model was shown again, and a fourth

trial was assessed. Poulson et al. (2007) report that the video model elicited the correct response

from the child 74% of the time following the second presentation of the stimuli. While modeling

was not the only intervention used, it had a high success rate in teaching preschool students to

generalize how and when to offer help to adults (Poulson et al., 2007).

Couloura, Gena, and Kymissis (2005) conducted a study utilizing video modeling and in-vivo modeling. They were proven to be effective interventions. Three pre-school aged children were the focus in this study. The purpose was to change the affective behavior of the children, who received treatment in three categories, including sympathy, appreciation, and disapproval. In addition to modeling, prompts and reinforcement of appropriate behaviors were also provided. The researchers first used in-vivo modeling to demonstrate appropriate responses in a variety of situations for the children. The child would be given the chance to respond to a scenario with appropriate statements and facial expressions. If an incorrect response was seen, the therapist would model what the child should do. In the sessions using video modeling, a similar procedure was used, except that the adult would play a video of a same-age peer displaying the correct responses. The outcomes of the study show that the children increased occurrences of appropriate affective behavior as a result of in-vivo modeling, video modeling, prompts, and reinforcement (Couloura et al., 2005).

Schreibman et al. (2000) used video priming to assist in improving the display of appropriate behaviors during transitions in daily routines and settings in the community for two three-year-old boys and one six-year-old boy with autism. One child displayed difficulty with leaving the house and changing clothes, therefore the intervention and generalization phases took place in his home. Another participant displayed tantrum behaviors in public settings, such as the shopping mall, whenever he was taken somewhere besides his favorite store. The mall was chosen as the setting for interventions, while the generalization phase and other sessions were counducted at Wal-Mart and another mall. Finally, the third child displayed problem behaviors in public settings, so the intervention phase was conducted at the mall and Target, while generalization was conducted at a local drugstore. The videos used showed first-person

perspective of the settings where the participants would be transitioning, and no models were used. The settings consisted of the in-home bathroom, hallway, and garage for the first student, while for the second student two different routes at the mall using four or five stores and ending at a favorite store, as well as a route at Wal-Mart, were used as settings for the treatment videos. The third student had two treatment videos containing the entrance and several sections of the local Target store and ending first in the toy section and then at the cash register because the participant typically did not want to leave the toy section. The second video for this student was of the mall and followed a route that ended in a toy store. No videos were used during baseline collection, however for the intervention phase the participants would be shown their prospective video and then taken to the setting depicted in the video in order to follow the exact routine. The students were either shown no video or a video of a new setting that was similar to the ones used in the intervention phase and then taken to the previously used setting. Follow-up was conducted one month after the treatment ended and no videos were used. Schreibman and colleagues (2000) proposed video-priming techniques were effective in problem behavior reduction during transitions for all children. Also noted is that the participants were able to typically generalize the appropriate behaviors to other transitions, as well as maintain the behavior throughout the follow-up session (Schreibman et al., 2000).

Scattone (2008) researched the effectiveness of combining social stories with modeling using video technology to improve social skills. The subject in this study was a nine-year-old boy with Asperger's syndrome (AS). The targeted behaviors were eye contact, smiling, and social initiations. Two adults would model specific social stories, centered around the target behaviors, on a video that the child would watch each night at home and before trials at the clinical setting. Data was collected over a period of three to four months, and intervention data

showed there was a noted increase in making eye contact with people in conversation, as well as in social initiations. However, there was no notable increase in smiling during conversation. Overall, the video-modeling, combined with social stories, was successful in two out of three targeted behaviors (Scattone, 2008).

Finally, video-modeling has also been used in some studies to teach academic skills. Delano (2007) targeted an academic behavior in written language for three adolescent males. The target behavior was to increase the number of words written, as well as functional elements, in a persuasive essay. A video of each student was created in which the student counted the number of words on an essay and graphed them on a bar graph. The students would then watch the video before each training session in an attempt to assist them with self-monitoring the number of words they were writing. Another video of each student was created to address functional essay elements. This video consisted of the student using a specific writing strategy for composing a persuasive essay. The students would view the video of themselves working thorough the strategy before each training session. The same materials would be given to the students to encourage the same behaviors seen in the video. All three students showed increases in the number of words written in a persuasive essay, as well as the number of functional elements used throughout the assignment (Delano, 2007). See Table 1 for a synthesis of studies about video-modeling.

Table 1. Studies Using or Reviewing Video-modeling

Author(s) and Year Study was conducted	Subject(s)	Research Focus	Findings
Albert & Shane, 2008	89 households with at least one child with autism	To study the effectiveness of ESM for persons with autism	Majority of participants preferred to do something related to ESM during

			leisure time and more than 50% of children with ASD displayed imitation while watching screen media
Alcantara, 1994	Three 8 and 9-year-olds with ASD	To determine if a "videotape instructional package" could teach grocery-purchasing	Participants were primarily successful in being able to purchase items independently and generalize the skill, however video-modeling was coupled with in-vivo instruction, a prompting system, and reinforcement.
Akullian & Bellini, 2007	23 studies focused on 3,20-year old individuals with autism	To review studies conducted over a 20 year span on video-modeling	Video-modeling is an effective intervention for those with ASD
Ayres et al., 2009	3 elementary-school students with ASD	To determine if participants can learn a to prepare soup, make sandwiches, and set the table using CBVI and then generalize the skill without further interventions	2 out of 3 students were successful in displaying the three targeted skills, while one was successful in 2 out of 3 skills (time constraints kept the 3rd from being assessed)
Bourret & Murzynski, 2006	Two 8 and 9-year-old males with ASD	To find out if a least-to-most intrusive prompting system combined with video-modeling is more effective than solely using the prompting system to teach chained daily-living skills of folding a shirt and pair of pants, making a sandwich, and making juice	Both participants acquired the target skills quicker with the combined intervention and less prompting was needed with video-modeling
Brannigan, Cuskelly, & Keen, 2007	Five 4-6-year olds with ASD	To determine if video-modeling, combined	None of the participants were

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		with preferred reinforcers (and the use of picture cue cards in one case) would be successful in potty training the participants	"potty-trained" at the end of the study but all showed increased toilet use
Buggey, 2005	Ten 5-11-year-olds with ASD	Video-modeling was used for variety of purposes including encouraging social initiations, decreasing duration of tantrums, decreasing occurrences of pushing, and encouraging language	Each student was successful in demonstrating targeted behaviors throughout the intervention
Cihak & Schrader, 2008	Four 16-21-year-old males with ASD	Researchers were trying to determine if video self-modeling or video-modeling was more effective in teaching two chained vocational skills	All four participants acquired the skills and maintained them; video modeling and video self-modeling were both effective in teaching skills, but some slight differences were noted between the two interventions
Couloura, Gena & Kymissis, 2005	Three pre-school-aged children with ASD	In-vivo modeling and video-modeling were used, along with prompts and reinforcement, to teach affective behavior	The participants increased display of appropriate affective behavior
Delano, 2007	Three adolescent males with ASD	Video self-modeling was used to try to increase number of words written and functional elements in an essay	All three students displayed increases in number of written words, as well as functional elements, used in the assignment
Dowrick, Hitchcock, & Prater, 2003	18 studies of school-based settings that had at least one student with autism	To review studies that used video self-modeling to assist with obtaining	15 of the 18 studies showed video self-modeling to be an effective intervention

		academic and behavior skills for students with and without disabilities	for teaching and generalizing behavior and academic skills
Graetz et al., 2006	13-year-old boy with ASD	To determine if video self-modeling of appropriate and inappropriate behaviors was effective in decreasing undesired behaviors	Inappropriate behaviors decreased, therefore the intervention was viewed as successful
Hermansen & McCoy, 2007	Various studies containing at least one person with ASD	Researchers reviewed studies that used a variety of forms of video-modeling (adult models, peer models, etc.)	Video-modeling, in general, is effective as an intervention for those with ASD
Lutzker, Shipley-Benamou & Taubman, 2002	Three 5-year-olds	Video-modeling, using first-person perspective was used in an attempt to teach a variety of functional skills (making orange juice, setting the table, etc.); candy was used as a reinforcer with two children once task was completed with 100% accuracy	All three participants obtained their targeted skills and continued displaying them after removal of the intervention
Poulson et al., 2007	Four 4-6-year-olds with ASD	Video-modeling using a peer , as well as prompting, were used to teach participants a generalized repertoire of helping adults by verbally offering and attempting to help in various situations	The combined intervention was successful in teaching how and when to offer help to adults
Reichow & Volkmar, 2010	Various individuals in 66 studies with autism from preschool-age to adulthood	Researchers were attempting to determine which practices have the best evidence for being considered "evidence-based" in helping to improve social	Video-modeling for school-aged children met the criteria for being considered "evidence-based"

		behavior of those with ASD	
Scattone, 2008	9-year-old boy with Asperger's Syndrome	To research the effectiveness of combining social stories with video-modeling to improve eye contact, smiling, and social initiations	The combined intervention was successful in increasing eye contact and social initiations but not in smiling
Schreibman et al., 2000	Two 3-year-old males and one 6-year-old male with ASD	Video priming was used to improve display of appropriate behaviors during daily transitions	Video priming was effective in decreasing display of inappropriate behaviors for all three participants

Summary of the literature. Overall, there is ample research to indicate that video-modeling is a successful intervention for improving language and social behaviors, decreasing inappropriate behaviors, and teaching functional skills (Dowrick et al., 2007; Neumann, 2004; Banda et al., 2007, Akullian & Bellini, 2007; Delano, 2007; Hermansen & McCoy, 2007; Ayres et al., 2009; Lutzker et al., 2002; Alcantara, 1994; Cihak & Schrader, 2008; Bourret & Murzynski, 2006; Graetz et al., 2006; Buggey, 2005; Poulson et al., 2007; Couloura et al., 2005; Schreibman et al., 2000; Scattone, 2008). Although many of these studies focus on the effectiveness of modeling for those students with an autism spectrum disorder, it appears the strategy could be used in situations involving children and youth with various disabilities. It is also apparent that the success of video modeling as an intervention is not limited to age or gender.

CHAPTER III

Methods

Individuals with autism may display a variety of deficits, including difficulty with independent functioning and daily living skills (Carothers and Taylor, 2004). Video-modeling is one intervention that has been used to teach functional skills to people with autism (Dowrick et al., 2003).

Participants. The primary participant in this study was a middle school student living in a rural area of Southeast Kansas. Various educators were approached about which student may best qualify for the study. The participant was ultimately selected based on attending school in the local district where the researcher worked, as well as having an ASD diagnosis. The second participant was used as a peer model and was selected based on availability, age, and familiarity with the primary participant.

Procedures. A review of the literature used in a past smaller study, completed by the researcher, on video-modeling was conducted in order to determine which methods were best for implementing the intervention, as well as if the intervention had the likelihood of being successful for teaching the identified functional skill. Informal interviews of the paraeducator, special education teacher, and parent were also conducted to determine if video-modeling had potential for changing behavior, as well as what behaviors would be targeted. A separate scripted interview was conducted with the parent to gather more information about the participant's diagnosis, environment, etc. (see Appendix A). The researcher, along with the aforementioned people, decided that hand washing would be the best behavior to target. Initially, there was intent to use the intervention to improve use of a communication device, however the researcher discovered throughout the preliminary data collection that the device was

not being implemented consistently across environments, therefore this portion of the study was abandoned. A proposal containing procedures to be followed throughout the study was presented to the Human Subjects Committee of the University of Kansas for approval. Once approval was granted, the researcher gained permission from the parents of both participants to begin the study. Using pre-established "assent procedures," verbal agreement to participate was also given by both participants. The intervention and data collection primarily occurred within the school setting. The participant would watch the video model at a computer within the resource room, as well as use the bathroom which was located within the same classroom. A single subject research design was used throughout the study. The primary participant was not in attendance at the school where the researcher was employed, therefore staff members working with the participant were trained in the data collection process to be implemented throughout the entire study and collection of baseline data (see Appendix D) was begun for a period of one week. Due to the participant having surgery, as well as spring break, the continuation of data collection was delayed. During the delay, the video model was created one day after school using the classroom, along with the in-class bathroom, with which the participant was familiar. A similar-aged peer model was used to create three video clips displaying the desired behaviors. The researcher used a general script was used as a guideline to direct the peer model in making the video clips (see Appendix B). Intervention data (see Appendix D) was collected for a period of two weeks before returning to baseline data. An outline of procedures to follow throughout the research was given to staff working with the student (see Appendix C). The procedures for teaching the participant to wash his hands after using the restroom, before eating, and after eating were similar. The participant would be shown the video clips about washing hands after using the restroom and washing hands before eating three times a day before he used the bathroom, as

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well as three times a day before eating. Even if he did not use the restroom or eat three times a

day, he would still be shown the clip three times. After using the bathroom and before eating

staff would present him with his communication book that consisted of a washing hands icon. If

the participant pointed to the washing hands icon, then staff would wheel him to the sink and

allow him to wash his hands. If the student did not choose the hand washing icon, then staff

would prompt him once to wash his hands. Any time the student had to be asked or reminded in

any way to wash hands, this was considered a prompt. The participant was capable of

understanding the prompts which were used and would only be prompted once per opportunity to

wash hands. The participant was also capable of washing his hands, as the display of this skill

had been observed before by staff and parents, therefore the prompts were utilized in order to

assist the participant with learning when to wash hands. The clip about washing your hands after

eating would be shown after lunch once a day and the communication book would be presented

with the same procedures being followed. Finally, a week of intervention was implemented

again before returning to the baseline within the participant's home environment as the

generalization phase was implemented. Four inter-rater reliability checks were conducted

throughout the intervention phases and one baseline phase by a separate staff member who

worked with the participant at times. The reliability for all four checks was 100%. A very brief

questionnaire of the video was completed by the two staff members who collected data, as well

as by the parent (see Appendix E). Regular contacts were made with staff throughout the

duration of the study and parents were also contacted at various, less frequent points to determine

if there were any additional questions, as well as to gather additional information about the

participant. Finally, the researcher showed the video model to the parent of the primary

participant within the home at the end of the study, and a final follow-up will be scheduled with

staff involved, as well as with the parent, to show the results of the study in graph format.

CHAPTER IV

Results

      Analysis of data. Data was collected over a period of six weeks to determine if video-modeling would improve the functional skill of hand washing at appropriate times for a middle school student with autism. Figures 1, 2, 3, and 4 show results of data collection on hand washing after using the restroom, before eating, after eating, and any other time the student washed his hands. Closed squares represent the number of prompts given for each session in each area, while open triangles represent how many times the student washed his hands. The student could be prompted once per opportunity to wash hands, therefore if two prompts were given, one can defer that there were two different opportunities to wash hands. Any form of reminder given to wash hands was a prompt. Prompts were provided in order to encourage student to wash hands at appropriate times, as the student had displayed the ability to wash his hands prior to the study.

      Figure 1 shows that the participant displayed an increase in the frequency of hand-washing after using the restroom. Baseline A data shows the participant washed his hands after using the restroom 0% of the time he was prompted. Throughout the first intervention phase, the participant washed his hands 44% of the time he was prompted, while for the second baseline, intervention, and follow-up phases, the percentages were 8%, 30%, and 100%. There was a significant increase in display of hand-washing after using the restroom from the initial baseline to the first intervention phase, while there was a significant decrease from the first intervention phase to the second baseline phase. The occurrence of washing hands increased somewhat significantly during the second intervention phase before drastically increasing in the follow-up phase. It should also be noted that in session 21 of the second baseline phase, the one occurrence

of hand washing occurred without a prompt, while the two documented prompts did not result in hand washing.

In Figure 2 Baseline A data shows the participant washed his hands 25% of the time he was prompted. Throughout the first intervention phase, the participant washed his hands 26% of the time he was prompted, while for the second baseline, intervention, and follow-up phases, the percentages were 0%, 17%, and 100%. There was a minor increase in display of hand-washing before eating from the initial baseline to the first intervention phase, while there was a significant decrease from the first intervention phase to the second baseline phase. The occurrence of washing hands increased somewhat during the second intervention phase before drastically increasing in the follow-up phase.

Figure 3 shows the student washed his hands and face after eating 0% of the time in the first intervention phase, while the follow-up phase shows he washed them 100% of the time he was prompted. There was a small amount of data collected on washing hands and face after eating, therefore not enough information was present to warrant any conclusive statements.

Figure 4 is significant in that the participant washed his hands twice without being prompted during the first intervention phase. The participant washed his hands once without being prompted during the second baseline phase.

Summary of results. Figures 1 and 2 collectively show that the participant was more likely to wash hands when prompted, and throughout the first and second intervention phases, as well as the follow-up phase. Figure 4 documents that the participant displayed three occurrences of washing his hands for reasons other than the targeted areas, and he was not prompted to do so. The other occurrence of washing hands without being prompted occurred once after using the

restroom. In all, the participant displayed four occurrences of hand-washing without prompts
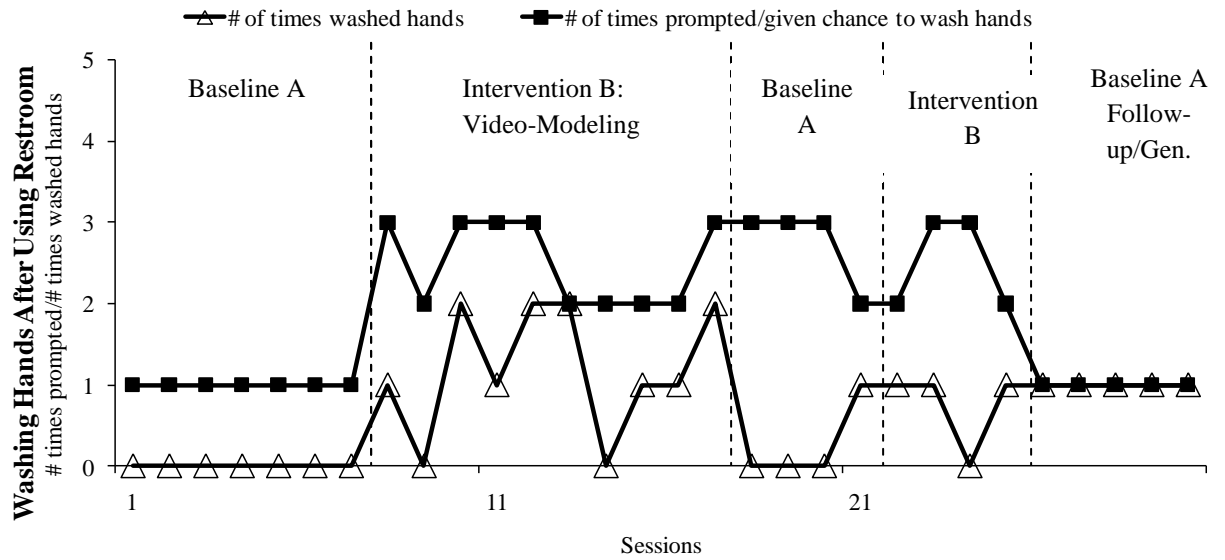
throughout the study.

Figure 1: Data displayed shows how often participant washed hands after using the restroom, as

well as how often he was prompted to display the skill.

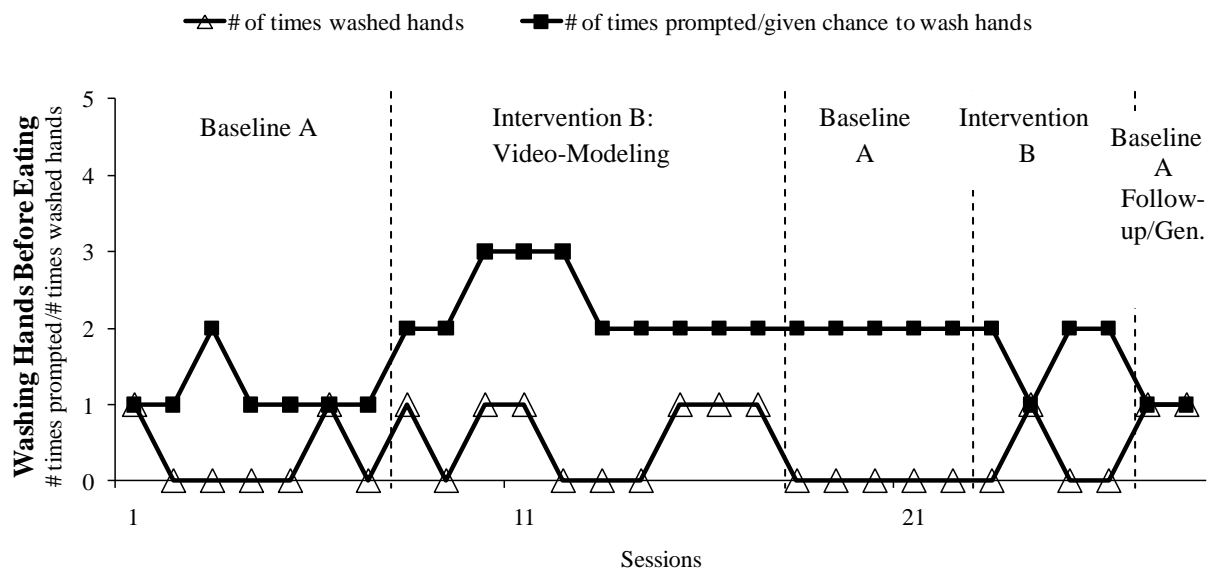*Figure 2*: Data displayed shows how often participant washed hands before eating, as well as how often he was prompted to display the skill.
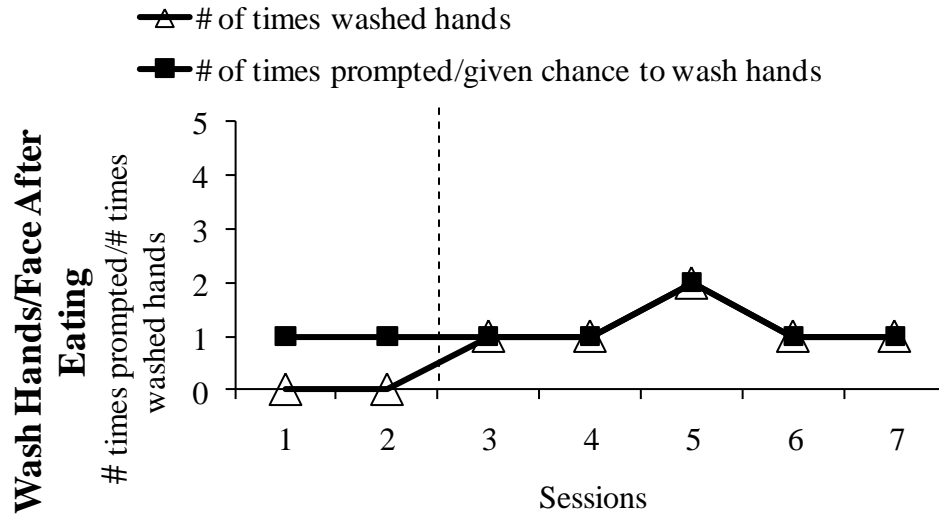

Figure 3: The data displayed was primarily collected at the participant's home within the follow-up phase.
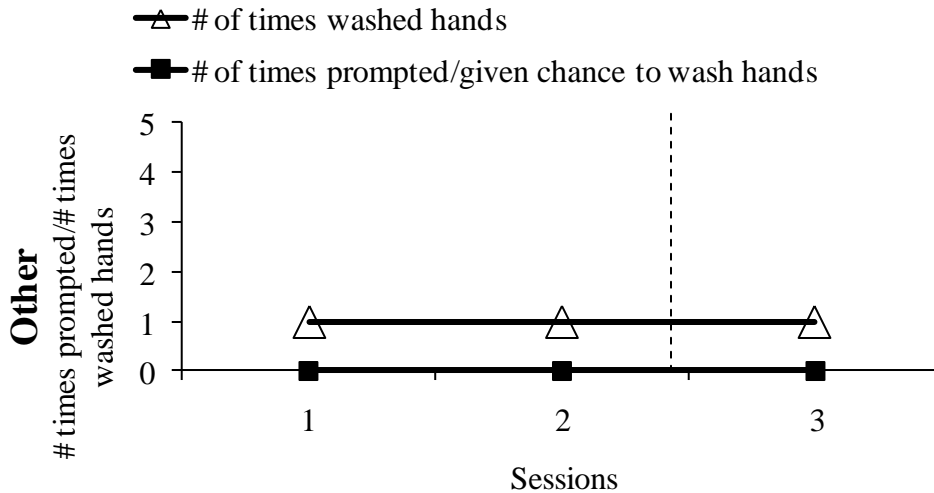

Figure 4: The data displays how many times the participant washed his hands other than after using the restroom and before and after eating.

CHAPTER 5

Discussion

      Summary. Video-modeling has been viewed as an effective intervention for those with an ASD because it is hypothesized as being appealing to the visual learning styles of many who have this disorder (Reichow & Volkmar, 2010). In the present study, video-modeling, specifically peer video-modeling, was used in an attempt to improve the display of the functional skill of hand washing at appropriate times. While the data does not consistently and overwhelmingly reveal video-modeling to be an effective intervention in teaching hand washing at appropriate times, it certainly reveals the potential video-modeling has as an effective tool in improving the display of functional skills. It should also be noted that throughout the study, along with the video-modeling, prompts were used (see Appendix C) as needed when the student did not initiate hand-washing on his own.

      Limitations. Various challenges and limitations were encountered throughout the study. The participant had surgery on his legs right after the baseline data was collected and was absent from school for a couple of weeks. Upon returning to school, the student was in a wheelchair for approximately one month. This provided the basis for introducing the hand-washing icon into the communication book (see Appendix C) as the student would not be able to walk directly to the sink when he desired to wash his hands and would likely need assistance with maneuvering the wheelchair. This required the researcher to come up with a way for the student to communicate a desire to wash hands without being prompted. Another limitation was that the communication book had not been consistently used with the student which could have hindered the likelihood that he would have pointed to the hand washing icon, likely resulting in the high frequency of being prompted to wash hands. A third, and major, limitation to the study was that

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the researcher was not able to be present in the building where the student attended school. This kept the researcher from observing the data collection process and discovering outside variables which may have impacted the study. Finally, a fourth limitation was that consistent and numerous data was not collected on washing hands and face as needed after eating, resulting in the primary focus being on hand washing after using the restroom and before eating.

Social validity. A brief two question survey was given to the two staff members who collected data and also work with the participant within the school environment, as well as to the parent of the participant (see Appendix E). All three participants in the survey noted that the message of when to wash hands was clear within the video model, and the video was easy to watch and kept their attention. Staff working with the student commented throughout the first intervention phase that the student was enjoying watching the video and attended to it well. The parent of the participant noted that she would be interested in having this used as an intervention for another child in the home.

Recommendations for future research. Future research may consist of using video self-modeling to teach the functional skill of appropriate hand-washing. Self-monitoring combined with a form of video-modeling should be researched to determine if there is an increase in the display of the desired functional skill as compared to strictly using video-modeling. A combination of video-modeling with the use of rewards for displaying the desired skill could also be utilized to determine if the addition of rewards makes video-modeling even more effective. Finally, future research could continue to explore the use of CBVI to teach functional skills to people with ASD.

In conclusion. The use of video-modeling as an intervention for those with autism was a prior interest of this researcher. It made it easier to determine the focus for this thesis. It was important to this researcher that this effort would benefit at least one child. The existing literature indicated the effectiveness of video-modeling as an intervention, and the researcher aimed to have video-modeling be deemed "successful" in this research project as well. The various challenges faced throughout the process made it difficult to continue at times, as is often true in real-world research. One of the primary challenges faced is that the researcher was not able to constantly be present with the primary participant and experience first-hand any progress he may be making. However, the feedback from those who did work with him supported the promising research on video-modeling that had already taken place in so many other cases and provided encouragement to continue. Another real-life challenge that was experienced was the interruption and delay in the research process as the participant had surgery. While there were several barriers to overcome throughout this project, the researcher notes that this study is one that could be replicated or modified as needed in order to benefit people in various settings, such as the classroom. The results of this research project may not be as far-reaching as some, but the participant did make progress, making video-modeling an effective tool. In conclusion, video-modeling overcomes so many barriers that those with ASD face and is a tool that could potentially benefit other populations with and without special needs.

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Appendix A

Interview Questions for Parents

Interview Questions for Parents

1) How old was your child when he was diagnosed with autism?

2) Do you see personal hygiene as a concern for your child at this time? How about in the future?

3) How does your child communicate at home?

4) What does your child's evening look like when he gets home from school (what does he do, etc.)?

5) How does your child respond at home when asked to do something he may not want to do (ie-wash hands before eating, after using bathroom, etc.)?

6) Would you be interested in possibly using video-modeling to teach your child other skills? (This would only be asked likely if video-modeling intervention is effective)

Appendix B

General Script Used for Making Video Model

General Script Used for Making Video Model

Washing hands after using the bathroom:

Peer Model.: I should always wash my hands with soap and water after using the bathroom.

Washing hands before eating:

Peer Model.: I should wash my hands with soap and water before eating meals, like breakfast, lunch, and dinner, or before eating a snack.

Sometimes my hands get messy from eating, so I should wash my hands and face with soap and water when that happens.

Appendix C

Procedures Given to Staff Who Collected Data

**if you have any questions call me at ███████████████████ or email kelly.francis@███████████

Due to the fact that the student is in a wheelchair, staff will introduce the handwashing icon into his communication book. In order to be considered "*washing hands w/no prompt*", the student will have to point to the handwashing icon WITHOUT direction or prompting and then follow through with handwashing.

Examples of *prompts* would be reminding the student to wash his hands, wheeling him up to the sink without him pointing to the handwashing icon, basically anything encouraging him to wash hands without him pointing to the icon.

Handwashing is defined as "using soap and water (not hand-sanitizer) to clean hands, as well as using a papertowel to dry them off"

Procedures for showing video clips:

1) Washing Hands after using the restroom: The student should be shown this video clip before he uses the restroom each time. He should be shown this video exactly 3 times a day. If, for some reason, he does not use the restroom 3 times a day, staff should show him the video anyway for 3 times throughout the day.

   a) After showing the video, staff should take the student to the restroom and then open his icon book AFTER he uses the restroom while still in the restroom, making sure the hand washing icon is available with the other icon choices.
   b) If the student chooses the hand washing icon, staff should wheel him to sink. Staff should step aside at this time to allow the student to follow through with hand-washing routine independently (w/no help). Staff would mark "prompted (n) wash hands (y)"
   c) If the student does not choose hand washing icon, staff should prompt him to wash hands and then step aside to see if the student follows through. If the student does not follow through, then this would be considered "prompted (y) and wash hands (n)". If the student does follow through, then this would be considered "prompted (y) and wash hands (y)".

2) Washing Hands before eating: The student should be shown this video clip before he eats, whether it be a snack or lunch. He should be shown this video 3 times a day, even if he is not eating 3 times. He should be shown it for sure right before lunch every day, and then once in the morning and once in the afternoon.
   a) After showing the video, staff should show the icon book, making sure the hand washing icon is available with the other icon choices.
   b) If the student chooses the hand washing icon, staff should wheel him to sink in bathroom. Staff should step aside at this time to allow the student to follow

through with hand-washing routine independently (w/no help). Staff would mark "prompted (n) wash hands (y)"

c) If the student does not choose hand washing icon, staff should prompt him to wash hands and then step aside to see if the student follows through. If the student does not follow through, then this would be considered "prompted (y) and wash hands (n)". If the student does follow through, then this would be considered "prompted (y) and wash hands (y)".

3) Washing hands/face after eating: The student should be shown this video 1 time a day after eating (after lunch).
   a) After showing the video, staff should show the icon book, making sure the hand washing icon is available with the other icon choices.

   b) If the student chooses the hand washing icon, staff should wheel him to sink in bathroom. Staff should step aside at this time to allow the student to follow through with hand-washing routine independently (w/no help). Staff would mark "prompted (n) wash hands (y)"

   c) If the student does not choose hand washing icon, staff should prompt him to wash hands and then step aside to see if The student follows through. If the student does not follow through, then this would be considered "prompted (y) and wash hands (n)". If the student does follow through, then this would be considered "prompted (y) and wash hands (y)".

Appendix D

Data Collection Form

Baseline/Intervention data

Targeted behaviors: Handwashing at appropriate times

Handwashing: defined as using soap and water (not hand-sanitizer) to clean hands
Prompted: Any time the student has to be asked or reminded in any way to wash hands, this is considred a prompt

Date:	Circle Y (yes) or N (no)					
	Wash hands	*Prompted*	Wash hands	*Prompted*	Wash Hands	*Prompted*
Before eating	Y N	Y N	Y N	Y N	Y N	Y N
After eating (as applies)	Y N	Y N	Y N	Y N	Y N	Y N
After using restroom	Y N	Y N	Y N	Y N	Y N	Y N
Other: _____	Y N	Y N	Y N	Y N	Y N	Y N
Other: _____	Y N	Y N	Y N	Y N	Y N	Y N

Appendix E

Questionnaire

Questionnaire

Please rate the following statements after viewing the video by circling the rating you choose.

1-yes

2-not sure

3-no

1) The message of "wash hands at appropriate times (before eating, after using bathroom)" was clear in the video.

1   2   3

2) The message of "use communication device appropriately (follow through with hand)" was clear in the video. **(NOT APPLICABLE-removed from study)**

1   2   3

3) The video was easy to watch and kept my attention

1   2   3

Appendix F

Assent Procedures

Assent Procedures

For child with autism

"I was wondering if you could help me with a project I am doing. You would help me by watching a video. You can watch a boy washing his hands and using his device! This will help you learn to wash your hands and use your device.

I am going to ask you a question. You can point to the "yes" or "no" icon, depending on your answer. Would you like to help me with this project?" (Have subject point)

If subject says, "Yes," then:

"I want you to know that you can change your mind about this project any time. If you decide you no longer what to help me, you can let me know this."

For typical peer model

"I was wondering if you could help me with a project. One of my students is having difficulty learning how to wash his hands and when to wash hands. He also is trying to learn to use his talking device. I was hoping that you would be a model for him. This means that I will make a videotape of you washing your hands and saying when hands should be washed. I would also like to videotape you using the talking device, I will show you how!

You may see the videotape after we make it, your parents can see it and the teacher (me) and paraeducator of the other boy will see it. I would also like to take it to show my professors at KU! I will then give the videotape to your parents so that your family will have it to keep.

By helping with this project you are doing a lot of good for this boy. Your help with this project is something you should be proud of as it is an opportunity to really help someone.

Are you willing to be a peer model for hand-washing and use of the device?

Is it ok if I and the paraeducator (name) see the videotape?

Is it ok if your parents see the videotape?

Is it ok if I bring the videotape to KU to show my professors?

If you should decide you want to quit or don't want to do this it is ok. You can quit at anytime just let me know.

Appendix G

Parent Consent for Peer Model

Interventions to Improve Daily Living Skills for a Student with Autism

INTRODUCTION

The Department of Special Education at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish your child to participate in the present study. You may refuse to sign this form and not allow your child to participate in this study. You should be aware that even if you agree to allow your child to participate, you are free to withdraw at any time. If you do withdraw your child from this study, it will not affect your relationship with this unit, the services it may provide to you, or the University of Kansas.

PURPOSE OF THE STUDY

The purpose of the project is to do classroom-based research to address a current challenge. The challenge I will be addressing is improving daily living skills of a student within the school system where I teach using peer modeling in the form of a videotape.

PROCEDURES

With your permission, your child will be videotaped modeling the correct way to wash hands including when hand-washing should take place such as before and after eating, after the bathroom. Your child will be videotaped modeling the use of a voice-output device appropriately. The video will be used as an intervention to teach another child how and when to wash hands and how to correctly use a voice-output device.

You are welcome to view the videotape and at the conclusion of the use of the tape, I will give it to you. The only persons who will view the videotape will be myself, the child whom we hope to assist with hand-washing and use of the device, your child, the classroom teacher and paraeducator. No information about your child is needed other than age, grade level.

The results of video-modeling by a peer is the topic of my masters thesis. With your signed consent for this project, I will show the video to my masters committee (three faculty members at the University of Kansas) at the time of my thesis defense. Following my defense meeting I will give the video to you, no additional copies will be made of this video.

RISKS

There is no anticipated risk to your child.

BENEFITS

The potential benefit would be that the subject participates in teaching skills to a peer and feels pride as a result.

PAYMENT TO PARTICIPANTS

There is no payment to participants.

PARTICIPANT CONFIDENTIALITY

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 a pseudonym instead of your child's name. The researchers will not share information about your child unless required by law or unless you give written permission.

Permission granted on this date to use and disclose your information remains in effect indefinitely. By signing this form you give permission for the use and disclosure of your child's information, excluding your child's name, for purposes of this study at any time in the future.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION

You are not required to sign this Consent and Authorization form and you may refuse to do so without affecting your right to any services you are receiving or may receive from the University of Kansas or to participate in any programs or events of the University of Kansas. However, if you refuse to sign, your child cannot participate in this study.

CANCELLING THIS CONSENT AND AUTHORIZATION

You may withdraw your consent to allow participation of your child in this study at any time. You also have the right to cancel your permission to use and disclose information collected about your child, in writing, at any time, by sending your written request to: Kelly Francis, classroom teacher. If you cancel permission to use your child's information, the researchers will stop collecting additional information about your child. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

QUESTIONS ABOUT PARTICIPATION

Questions about procedures should be directed to the researcher(s) listed at the end of this consent form.

PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my child's rights as a research participant, I may call (785) 864-7429, write to the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas   66045-7563, or email mdenning@ku.edu.

I agree to allow my child to take part in this study as a research participant. By my signature I affirm that I have received a copy of this Consent and Authorization form.

_____   _____

Print Participant's Name   Date

_____

Parent/Guardian Signature

Researcher Contact Information

Kelly Francis   Deborah E. Griswold, Ph. D.
Principal Investigator & Teacher   Faculty Supervisor
620 Sycamore   Department of Special Education
Humboldt, KS 66748   University of Kansas
(423) 309-7107   dgriz@ku.edu
Tnk72002@ku.edu

Appendix H

Parent Consent for Student with ASD

Interventions to Improve Daily Living Skills for a Student with Autism

INTRODUCTION

The Department of Special Education at the University of Kansas supports the practice of
protection for human subjects participating in research. The following information is provided
for you to decide whether you wish your child to participate in the present study. You may
refuse to sign this form and not allow your child to participate in this study. You should be
aware that even if you agree to allow your child to participate, you are free to withdraw at any
time. If you do withdraw your child from this study, it will not affect your relationship with this
unit, the services it may provide to you, or the University of Kansas.

PURPOSE OF THE STUDY

The purpose of the project is to do classroom-based research to address a current challenge. I
hope to use video peer modeling to work with your child on behaviors such as how to wash
hands and when, and to demonstrate via this peer model how to use a voice output device. The
peer will be a student in a higher grade than your child.

PROCEDURES

With your permission baseline data on the above stated behaviors will be taken about your son.
Then when the videotape is introduced data will be taken to see if the use of the video has helped
your child take the steps in the hand-washing routine and the use of the communication device.
The video will be used several times a day for 2 weeks. Then I will stop showing the video to see
if your child can perform hand-washing and use of the device independently. I will take data
again. I will reintroduce the use of the video, take more data. The data will be collected by an
adult employed by the school (teacher, para-educator). During this last step I will ask you to
take data on hand-washing at home. You and I will meet to talk about how this can be done.

RISKS

It is possible the interventions could temporarily stress your child as he is introduced to this new
procedure and is prompted to display skills he does not currently display on a consistent basis.

BENEFITS

The potential benefits would be that the subject improves his daily living skills specifically hand-
washing and use of his communication device.

PAYMENT TO PARTICIPANTS

There is no payment to participants.

PARTICIPANT CONFIDENTIALITY

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 a pseudonym instead of your child's name. The researchers will not share information about your child unless required by law or unless you give written permission.

Permission granted on this date to use and disclose your information remains in effect indefinitely. By signing this form you give permission for the use and disclosure of your child's information, excluding your child's name, for purposes of this study at any time in the future.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION

You are not required to sign this Consent and Authorization form and you may refuse to do so without affecting your right to any services you are receiving or may receive from the University of Kansas or to participate in any programs or events of the University of Kansas. However, if you refuse to sign, your child cannot participate in this study.

CANCELLING THIS CONSENT AND AUTHORIZATION

You may withdraw your consent to allow participation of your child in this study at any time. You also have the right to cancel your permission to use and disclose information collected about your child, in writing, at any time, by sending your written request to: Kelly Francis, classroom teacher. If you cancel permission to use your child's information, the researchers will stop collecting additional information about your child. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

QUESTIONS ABOUT PARTICIPATION

Questions about procedures should be directed to the researcher(s) listed at the end of this consent form.

PARTICIPANT CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my child's rights as a research participant, I may call (785) 864-7429, write to the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas   66045-7563, or email mdenning@ku.edu.

I agree to allow my child to take part in this study as a research participant. By my signature I affirm that I have received a copy of this Consent and Authorization form.

_____ _____

Print Participant's Name   Date

_____

Parent/Guardian Signature

Researcher Contact Information

Kelly Francis   Deborah E. Griswold, Ph. D.
Principal Investigator   Faculty Supervisor
620 Sycamore   Department of Special Education
Humboldt, KS 66748   University of Kansas
(423) 309-7107   dgriz@ku.edu
Tnk72002@ku.edu

Appendix I

Information Statement

Information Statement

The Department of Special Education at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty.

 We are conducting this study to better understand effective interventions for students with autism. This will entail you answering some questions verbally, as well as possibly participating in completing a check chart at home. The check chart would be used for approximately a week and would take no longer than one minute a day to complete.

 These procedures should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we believe that the information obtained from this study will help us gain a better understanding of effective interventions for students with autism. Your participation is solicited, although strictly voluntary. Your name will not be associated in any way with the research findings. If you would like additional information concerning this study before or after it is completed, please feel free to contact us by phone or mail.

Signing this form indicates your willingness to participate in this project and that you are over the age of eighteen. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or (785) 864-7385 or write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas   66045-7563, email mdenning@ku.edu.

Sincerely,

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