

TEACHING JOB INTERVIEWING SKILLS TO HIGH SCHOOL STUDENTS WITH
AUTISM SPECTRUM DISORDER USING VIDEO MODELING

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

DEPARTMENT OF TEACHER EDUCATION

COLLEGE OF PROFESSIONAL EDUCATION

BY

ADELA L. MAURER, MEd.

DENTON, TEXAS

AUGUST 2019

COPYRIGHT © 2019 by ADELA L. MAURER

DEDICATION

To my wonderful husband, Jeff, for giving me so much love and support. I thank God every day for blessing me with you.

ACKNOWLEDGMENTS

I want to first thank my family for all their support throughout this journey. To my husband, Jeff, thank you for pushing me to finish what I had started over ten years ago. I could not have done this without you. To my beautiful boys, Mekhi, Alex, and Stephen, I love you so much and I apologize for all the times I couldn't spend them with you and for allowing me to complete my homework without holding any grudges against me. To my niece, Roslyn, thank you for always listening and for giving me encouragement when I wanted to give up. To my mother-in-law, Betty, and my father-in-law, Clay, thank you for being there for me and for flying to Texas whenever I needed a babysitter, so that I could finish my homework. I can never express just how much you all mean to me and I feel so blessed to have you in my life.

I give special thanks and gratitude to my advisor, Dr. Minkowan Goo for believing in me and helping me pursue my goals, and staying with me throughout this process. I have learned so much from you and couldn't have completed this dissertation without your constant encouragement and expertise. I also would like to thank Dr. Myers and Dr. Pemberton for your support and encouragement.

Lastly, I have to extend my appreciation to Keller Independent School District for allowing me to conduct my research at one of their high schools. A special thanks to Bob and the students who participated in this study. I could not have completed my research without their support.

ABSTRACT

ADELA L. MAURER

TEACHING JOB INTERVIEWING SKILLS TO HIGH SCHOOL STUDENTS WITH AUTISM SPECTRUM DISORDER USING VIDEO MODELING

AUGUST 2019

Individuals with autism spectrum disorder (ASD) have difficulties with reciprocal social interactions and interpersonal communication, which may negatively affect the transition from high school to the workplace. In particular, the job interview process can be very challenging for young adults with ASD. This study used a multiple-probe, across participants design to examine the effectiveness of video modeling (VM) in teaching interviewing skills to students with ASD and whether skills learned through VM can generalize to an office setting. The intervention consisted of viewing nine interview videos: one introduction video, seven question-response videos, and one closing video. After each video was viewed, the student role-played the behaviors illustrated in the video. Results of this study indicated that using VM is an effective means to teach job interviewing skills (JIS) to high school students with ASD.

TABLE OF CONTENTS

	Page
DEDICATION	ii
ACKNOWLEDGMENTS	iii
ABSTRACT.....	iv
LIST OF TABLES	vii
LIST OF FIGURES	vii
Chapter	
I. INTRODUCTION	1
II. REVIEW OF THE LITERATURE.....	5
Video Technology to Teach Job Interviewing Skills to Individuals with Autism...8	
Purpose of Current Study.....	13
III. METHODOLOGY	14
Participants.....	14
Instructional Setting.....	16
Materials	16
Experimental Design.....	20
Independent Variable	21
Dependent Variable	21
Procedures.....	21
Interobserver Reliability	24
Procedural Fidelity.....	25
Social Validity	26
IV. RESULTS	27
Alan.....	31
Kevin.....	32

Stephen.....	33
Interobserver Agreement and Procedural Fidelity	35
Social Validity	35
V. DISCUSSION	36
Limitations	38
Suggestions for Future Research	39
Conclusion	40
REFERENCES	41
APPENDICES	
Appendix A	49
Appendix B	51
Appendix C	54
Appendix D	56
Appendix E	58

LIST OF TABLES

Table	Page
1. Information of Participating Students	15

LIST OF FIGURES

Figure	Page
1. Correct Responses to Interview Questions	28
2. Appropriate Behaviors During Interview	30

CHAPTER I

INTRODUCTION

Autism spectrum disorder (ASD) is a complex developmental disability that typically appears in the first years of life and affects a person's ability to communicate and interact with others (Chappel & Somers, 2010). Individuals with ASD have difficulties with reciprocal social interactions and interpersonal communication and may demonstrate unusual or repetitive patterns of behaviors (American Psychiatric Association [APA], 2013). Therefore, identifying effective interventions for use in educational programs that focus on communication, social development, life skills, and academics for high school students with ASD can present a unique set of challenges for educators (Delano, 2007). Educational programs that are unable to address the social and communication needs of individuals with ASD can negatively affect the transition from high school to the workplace (Jennes-Coussens, Magill-Evans, & Koning, 2006).

Individuals with ASD note the importance of being employed (Hurlbutt & Chalmers, 2004; Müller, Schuler, Burton, & Yates, 2003); however, their difficulties, such as communication, social skills, coping with changes, and sensory overload cause problems with obtaining employment (Griffith, Totsika, Nash, & Hastings, 2011). Griffith et al. (2011) interviewed 11 adults with ASD, ranging from 37 to 57 years old, using interpretive phenomenological analysis (IPA) to get an inside perspective on their personal world. Many of the participants discussed the problems they experience in the

workplace and described having numerous, often short-term jobs over the years. Holmes (2007) reported that if people with ASD do not find employment after high school, they have a 70% chance of not being gainfully employed throughout their life. The job search process is also very challenging for young adults (18 to 22 years old) with ASD, especially the interview process (Walker, Vasquez, & Wienke, 2016). The initial job interview is the first hurdle to entering the workforce, thus learning needed social skills is critical for them to ensure positive occupational outcomes (Strickland, Coles, & Southern, 2013). Job interviewing skills (JIS; e.g., building and creating a resume, practicing scripts, role-play scenarios, and immediate constructive feedback) can effectively help these students increase their awareness of career opportunities, provide opportunities to practice, and develop the self-confidence needed for a successful job search and interview process (Higgins, Koch, Boughfman, & Vierstra, 2008).

One of the promising interventions in teaching functional skills to students with ASD is video-based instruction (VBI; Reed, Hyman, & Hirst, 2011). VBI is based on Bandura's (1977) social learning theory in which observational learning is based on acquiring a variety of skills by observing the actions of other people. Corbett and Abdullah (2005) stated that VBI is well-suited for students with ASD because it can be adapted so that teacher instruction matches students' learning and behavioral characteristics. Video modeling (VM) is a promising intervention for teaching skills to students with ASD. Goh and Bambara (2013) defined VM as a procedure where a participant watches one or more video demonstrations of a skill and is then required to perform the skill at a later time. For instance, Reichow and Volkmar (2010) indicated

VM can be used as an effective intervention for individuals with ASD to teach social skills required for job interviews. Also, VM delivered through a mobile device can improve the performance of adults with ASD in job interviewing, especially directly before an interview by using playback capabilities (Hayes et al., 2015).

Definition of Terms

1. Autism Spectrum Disorder (ASD) – A neurodevelopmental disorder characterized by persistent social-communication difficulties, such as nonverbal communication, social-emotional reciprocity, and interpersonal relationships; with restricted interests and repetitive behaviors (APA, 2013).
2. Video Modeling – A learning technique used to teach social skills, in which students watch a video of someone modeling a desired behavior, then imitate what was observed in the video (Bellini & Akullian, 2007).
3. Video Prompting – An interactive learning technique in which a behavior or skill is broken into steps, where each step has a corresponding video and the step is attempted by the student after each video (Hayes et al., 2015).
4. Virtual Reality Job Interview Training (VR-JIT) – A computerized virtual reality training simulation that can be used as computer software and via the internet (Smith et al., 2014).
5. Individual Education Plan (IEP) – “A written statement for a child with a disability that is developed, reviewed, and revised in accordance with §§300.320 through 300.324” (Texas Education Agency [TEA], 2016, pp. A-14).

Statement of Purpose

The purpose of this study was two-fold. The primary purpose was to determine if video modeling was effective in teaching job interviewing skills (JIS) to students with ASD. The secondary purpose of the study was to determine if the interviewing skills acquired through video modeling would be generalized to a real office setting.

CHAPTER II

REVIEW OF LITERATURE

Students with ASD who leave high school without the necessary JIS may experience challenges navigating their way through adulthood (Ankeny & Lehmann, 2011; Mull, Sitlington, & Alper, 2001), and these challenges can interfere with job attainment and job retention (Hendricks, 2010; Higgins et al., 2008). Schools can play an important role in preparing students with disabilities for the workforce; however, most high schools focus on college preparation for all students, instead of actual workforce readiness (Levinson & Palmer, 2005). Accordingly, JIS are not usually taught in schools to youth with disabilities (Bobroff & Sax, 2010), despite being a gateway to obtaining competitive employment (Higgins et al., 2008). Interviewing for a job can be a stressful experience, which can cause individuals with ASD to freeze up and be unable to communicate their knowledge and experience (Whetzel, 2014).

The National Organization on Disability (2010) reported that only 21% of adults with disabilities were employed full or part time within 2 years after graduating high school, whereas 59% of adults without disabilities were employed within the same time period. Specifically, Barnard, Harvey, Potter, and Prior (2001) reported fewer than 6% of adults with ASD found full-time work after leaving high school. More recently, Shattuck et al. (2012) surveyed 500 parents, guardians, and young adults (19-23 years old) with ASD capable of answering the survey questions and found that more than 50% of young

adults with ASD had no participation in employment within 2 years after high school. The researchers also indicated young adults with ASD had the lowest rates of participation in employment compared to young adults in other disability categories (Shattuck et al., 2012). Additionally, Roux et al. (2013) investigated postsecondary employment experiences of young adults with ASD and compared the outcomes against the experiences of young adults with other disabilities (i.e., intellectual disability, learning disability, speech impairment, and emotional disturbance) using the National Longitudinal Transition Study-2 (NLTS2) data. The analysis indicated young adults with ASD experienced more difficulty in transitioning into employment compared to young adults with other disabilities. Additionally, young adults with ASD were found to have earned significantly lower wages compared to the other disability groups. Further, Hurlbutt and Chalmers (2004) indicated that adults with ASD had difficulties in finding jobs commensurate with their ability levels and maintaining employment due to poor communication with co-workers and employers, deficits in social skills, and sensory overload.

Particularly, individuals with ASD struggle with job interviewing. For example, Müller et al. (2003) interviewed 18 adults with ASD seeking their perspectives on suggestions for improving vocational placement and job retention services. The majority of the participants reported having difficulty in the job application process. The participants also indicated that their job opportunities were limited by poor JIS (e.g., not knowing how to answer the interviewers' questions). Sarrett (2017) surveyed 94 adults with ASD, 44% of whom were young adults between the ages of 18 to 25, to determine

the challenges in obtaining and keeping employment and to report any negative experiences in the workplace. The study reported adults with ASD experience challenges in the interviewing process and noted particular expressions of frustration (e.g., “I cannot pass the job interview”).

Individuals with ASD demonstrate issues with certain nonverbal communication, such as eye contact, physical proximity, facial expressions, body posture, and gestures. While employment is critical to the quality of life for individuals with ASD (Hurlbutt & Chalmers, 2004; Müller et al., 2003), these social communication impairments can interfere with job attainment and retention (Higgins et al., 2008). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V; APA, 2013), the characteristics of ASD include (a) deficits in social communication and social interaction, and (b) repetitive patterns of behavior. Individuals with ASD often exhibit echolalia (i.e., repetition of words or phrases), inappropriate behaviors and language, limited understanding of social norms, and literal interpretation of speech. Moreover, they struggle to recognize how their ideas, beliefs, and feelings might differ from others’ (i.e., recognize that others’ perspectives are different from their own) and often do not understand the effect of their behavior on others (Strickland et al., 2013). Consequently, individuals with ASD will have a difficult time securing employment (Higgins et al., 2008), due to deficits in nonverbal and verbal social communication skills that could interfere with the reciprocity and flow of conversation necessary to interview for a job (Morgan, Leatzow, Clark, & Siller, 2014).

Video Technology to Teach Job Interviewing Skills to Individuals with Autism

With the emergence of video technology (VT), researchers have begun to investigate the feasibility and effectiveness of video strategies for teaching a variety of daily living skills, including employment skills (Mechling, 2005; Walker et al., 2016). Video-based instruction (e.g., video prompting, VM, and VR) has demonstrated to be an effective instructional tool for students with ASD by allowing instruction to match their learning (Corbett & Abdullah, 2005; Gardner & Wolfe, 2013; Johnson, Blood, Freeman, & Simmons, 2013; Strickland et al., 2013).

Video Prompting

Video prompting (VP) is defined as breaking down a specific skill into individual steps and then developing a separate video segment for each step. Johnson et al. (2013) evaluated the effectiveness of VP delivered on an iPod Touch to teach food preparation skills to two high school students with ASD and intellectual disability (ID). A series of video prompts were created for each food preparation task, with 10 to 11 prompts for each task and a two- to four-word written description of the step beside each picture. Both participants learned to perform three different cooking tasks: preparing a fruit smoothie, cooking macaroni and cheese in a microwave, and cooking a frozen pizza in a microwave. An immediate increase in the percentage of steps completed independently was demonstrated when VP was presented for each of the three tasks. Participant 1 completed 20% of the steps associated with each task independently. After VP was introduced, participant one reached criterion (i.e., 100%) in 13 sessions or attempts for completing the first task (smoothie) and in seven sessions for the second (macaroni and

cheese) and third (pizza) tasks. During the maintenance condition, participant 1 completed all three tasks with 100% independence. Participant 2 went from performing the tasks independently at 40% during the baseline condition to 80% after the video prompts were shown during the first intervention condition. Participant 2 reached criterion in six sessions for the first task, three sessions on the second task, and two sessions on the second task. Results demonstrated that VP was effective in promoting independence in performing food preparation skills for both participants.

Similarly, Cannella-Malone et al. (2015) evaluated the effectiveness of VP with error corrections for teaching a student with ASD and ID three vocational tasks. The researchers used continuous VP to teach a student table washing, window washing, and washing dishes by continuously showing the video in a loop. The removal of VP led to an immediate deterioration of performance, but when VP was faded at a moderate rate, skills deteriorated much more slowly. Results of this study demonstrated that continuous VP with error corrections was effective in teaching vocational skills.

Video Modeling

Strickland et al. (2013) used a randomized study to investigate the effects of using an internet-accessed training program that includes VM, visual supports, and virtual reality (VR) practice sessions in teaching appropriate job interview skills to individuals with high functioning ASD. Twenty-two participants, between the ages of 16 and 19, were evaluated during two employment interviews. Half of the participants received a training intervention following the initial interview, and the other half did not receive the training. During the training intervention, participants were asked to answer five standard

interview questions (e.g., “Tell me about any work or volunteer experience you have had”) and five situational interview questions that required the participants to describe how they responded in a particular situation (e.g., “Describe a situation that you helped someone out, who they were, and what you did to help them?”). The participants were also evaluated for behaviors related to greetings and farewells (e.g., handshakes, eye contact, verbal greeting, and verbal expression of appreciation at the end of interview) and nonverbal behaviors (e.g., body positioning, facial expressions) that accompanied verbal responses during the interview process. Data were collected during each interview. Results indicated that participants who completed the internet-accessed training program demonstrated significantly more effective verbal content skills during job interviews than those who did not.

Additionally, Hayes et al. (2015) conducted a study using VM through a mobile device to improve job interviewing performance of students with ASD, ranging from 17 to 18 years of age. In this study, 15 students participated in mock employment interviews. Eight of the participants were randomly assigned into an intervention condition in which seven interview questions were asked using an iOS device (e.g., mobile phone, iPod touch) and the application VidCoach, to view each interview video. The researchers created a video for each question pertaining to acquiring a job in either food service, health care, hospitality, retail with or without experience, and one general response. Six job interview questions were collected from prospective employers in southern California. The participants then chose which videos to watch, depending on job interest, and chose whether to watch a video in its entirety or a single segment. Researchers used *t*

tests to evaluate the success of each intervention, and qualitative interviews were used for comprehending and analyzing the effects of VM. Data were also collected in the following areas: hygiene and hair care, handshake, asking appropriate questions, fidgeting, using appropriate grammar and vocabulary, smiling, and tone of conversation. Participants who completed the intervention demonstrated significant improvements in overall interview performance, reduction of fidgeting behaviors, and improvement in hygiene and hair care.

Virtual Reality

Kandalaft, Didehbani, Kraweczyk, Allen, and Chapman (2013) conducted a pilot study to investigate the use of VR to enhance social skills, social cognition, and social functioning of young adults with ASD. Using a combination of correlational and survey research methods, the researchers investigated the effects of using the Virtual Reality Social Cognition Training (VR-SCT) intervention to teach 14 different scenarios, including job interviewing skills. The researchers instructed eight participants, ranging in ages from 18 to 26, on how to use the avatars in VR-SCT to interact in a variety of social scenarios. Each scenario was developed to mimic commonly experienced social situations and had a learning objective, including meeting new people, dealing with a roommate conflict, negotiating financial or social decisions, and interviewing for a job. The VR-SCT learning objectives also focused on real-time performance of emotion recognition (recognizing other's feelings and tone of voice) and conversational skills (initiating, maintaining, and closing). After 10 sessions of the VR-SCT intervention,

participants' skills significantly increased in all learning objectives, which may suggest that VR is a promising tool for improving JIS skills in adults with ASD.

Smith et al. (2014) examined the feasibility and efficacy of role-play simulation using Virtual Reality Job Interview Training (VR-JIT) to improve job interview skills among individuals with ASD. Another computer-based intervention used to enhance interviewing skills for individuals with a range of disabilities, VR-JIT can be used as computer software or via the internet (Smith et al., 2016; Smith et al., 2014). Twenty-six participants with ASD were recruited from a community-based service provider. A single-blinded randomized controlled trial was used with 16 participants in the intervention group and 10 in the treatment-as-usual (TAU) group. Both groups completed baseline and follow-up assessments, but while the intervention group received 10 hours of training using VR-JIT, the TAU group had a waiting period. Results of this study demonstrated that, compared to the TAU group, the VR-JIT intervention group demonstrated significantly improved job interview skills, enhanced self-confidence, and increased simulated interview scores across trials even with an increased level of difficulty. In a similar study, Smith et al. (2016) used VR-JIT with adults who had a substance use disorder and found that VR-JIT helped prepare participants for future interviews. The participants who received the training also maintained their skills even after a 6-month follow up.

Purpose of Current Study

Previous studies suggest VT is effective in teaching JIS to students with ASD (e.g., Hayes et al., 2015; Strickland et al., 2013). However, we only found seven

empirical studies that examined the effects of using VT as a means for teaching JIS to students with ASD. In addition, a few studies taught students with ASD appropriate behaviors required during job interview using VT. Therefore, the purposes of this study were primarily to examine if VM was an effective strategy for teaching JIS to high school students with ASD and secondarily, to examine if VM was an effective strategy for students with ASD to generalize acquired JIS to a real office setting.

CHAPTER III
METHODOLOGY

Participants

Three high school students with ASD were recruited from a high school in a North Texas school district. All students attended at least one class period in the Structured Teaching Alternative Resource (STARS) classroom to receive help with completing assignments or to go over social situations that may occur during a typical day. A special education teacher (STARS classroom) at the high school was asked to nominate potential participants based on three inclusion criteria: (a) students have been identified as having ASD by the school district's autism team, which includes a school psychologist, a diagnostician, a speech pathologist, and, occasionally, an occupational therapist (most school districts do not accept outside evaluations); (b) students have received a scaled score of 6 or higher on the Formulation of Sentences subtest from the Clinical Evaluation of Language Fundamentals –Fifth Edition (CELF-5, 2013) on a previous Full Individual Evaluation (FIE); and (c) students have current Individual Education Plan (IEP) goals related to transition skills (e.g., job skills). All students demonstrated average ability on the Formulation of Sentences subtest from the CELF-5, meaning that students were able to speak in complete sentences, and had a current IEP consisting of at least one transition/vocational skills goal. Demographic information for the participants is presented in Table 1.

Table 1

Information of Participating Students

Student	Sex	Age	Grade	Identified Disability	Intellectual Quotient (IQ)
Alan	M	17	12	ASD and SI	93 (WISC-IV)
Kevin	M	18	12	ASD	96 (WJ-III)
Stephen	M	15	9	ASD and SI	70 (WJ-III)

Note. ASD = autism spectrum disorder; SI = speech impairment; WISC-IV = Wechsler Intelligence Scale for Children – Fourth Edition; WJ-III = Woodcock-Johnson – Third Edition.

Alan was a 17-year-old senior high school student with an IQ of 93 on the Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV; Wechsler, 2003). Apart from being identified as a student with ASD, he was also receiving speech services in the area of pragmatics. Alan was accessing services (i.e., assistance with attaining work experience) through Texas Workforce, an outside vocational program that assists individuals with disabilities in preparing for postsecondary opportunities and taking social skills training. One of his IEP goals included developing vocational skills, emphasizing in completing tasks independently (i.e., without prompting). Alan was currently receiving social skills support through the school district’s STARS program.

Kevin was an 18-year-old senior high school student with an IQ of 96 on the Woodcock-Johnson – Third Edition (WJ-III; Woodcock, Mather, & McGrew, 2001). He scored in the average range in all of the areas of the CELF-5 and did not meet criteria for speech services. Kevin was looking forward to attending community college, receiving a degree or certificate in either illustration or animation, and finding employment. He was

currently working on building efficacy in job-related performance by independently monitoring and implementing the necessary social strategies to express his opinion with respect to others and to adjust to work with minimal distractions. Kevin was currently receiving social skills support through the school district's STARS program.

Stephen is a 15-year-old freshman high school student with an IQ of 70 on the WJ-III (Woodcock, Mather, and McGrew, 2001) and is receiving speech services for pragmatics. He is currently working on complying with adult directives and completing tasks without objectionable complaints (e.g., out loud and under his breath objections, self-talk, and/or negative vocalization). After high school, Stephen is hoping to find work and pursue a college course to prepare him to work in the field of his interest. He is also receiving social skills support through the school district's STARS program.

Instructional Setting

This study took place in two different settings. The first setting was in a conference room at the students' high school, which was used for baseline, intervention, and maintenance phases. The room had a large table with chairs around it. The other setting was an unfamiliar office, in the student's school, used to conduct the mock interviews during pretest and posttest phases.

Materials

Interview Questions

I developed seven generic interview questions (see Appendix A). To determine these questions, I contacted two high school principals from the school district where the research will take place and asked them for the five most common questions they

ask when interviewing new employees who apply for a school office part-time position. Many schools in this school district have office assistants who assist teachers with office work, such as making copies, laminating, and cutting. From the principals' responses, I chose seven questions, identified by both principals, as the most commonly used during their interviewing process. For example, both principals said that they usually start the interview by saying, "Tell me about yourself," so this statement was included in the interview questions. All questions chosen were open-ended questions to allow participants to share complete thoughts.

Equipment

A Sony handycam 9.2 megapixels with tripod was used to create videos (explained below) for the intervention, and Adobe editing software was used to edit raw videos. The edited videos were then downloaded onto an Apple iPad Pro for use during the intervention phase.

Instructional Videos

I created nine interview videos: one introduction video, seven question-response videos, and one closing video. Each video clip lasted approximately 1 minute. To create these videos, I hired two actors. One was a graduate student (interviewer) and the other was a high school student from a different school district (interviewee). In each question-response video, the interviewer actor asked an interview question, and the interviewee actor responded to the question with desired answers (e.g., Tell me about yourself. I am a sophomore in high school and have a sister in college) and behaviors (e.g., facing the interviewer, appropriate facial expressions). The introduction and

closing videos showed general instructions on how to engage during introduction and closing for interview (e.g., greeting, making an introduction, shaking hands, and farewell statement), and also showed desirable behaviors expected from interviewers (e.g., eye contact, posture).

I created a script for the videos. The script included directions (e.g., greeting and eye contact) for the actors to simulate an interviewing process. The interview process in the script was the same as the process used in mock job interviews in each phase of the study.

Data Collection Sheets

I created two data collection sheets. The first data collection sheet was used to collect data on students' responses to the interview questions across all phases (see Appendix B). The data collection sheet was adopted from Strickland et al. (2013) and modified for this study. Each response to the seven questions was scored according to a rating scale from 0 to 4 points: (a) no response – 0 points, (b) poor – 1 point, (c) fair – 2 points, (d) good – 3 points, and (e) excellent – 4 points. The total possible points for each mock job interview were 28. The overall score was converted into a percentage by dividing the obtained score by 28 and then multiplied by 100. The percentage of the obtained score was then graphed for visual analysis.

The second data collection sheet (see Appendix C) was used to measure the occurrence of appropriate behaviors (i.e., verbal greeting, initiating handshake, smiling, and eye contact) before, during, and after a mock job interview. The appropriate verbal and nonverbal behaviors were adopted from Strickland et al. (2013) and were modified

for this study. This sheet also includes four target behaviors, a definition of each behavior, and a rating scale of 0 to 1 for Behaviors 1 (verbal greeting) and 2 (handshake), and a rating scale of 0 to 3 for Behaviors 3 (smiling) and 4 (eye contact), with a possible total of 8 points.

In terms of Behaviors 1 and 2, I measured if the behaviors occurred (i.e., “Never displayed behavior – 0 points” or “Displayed behavior – 1 point”). With regard to Behaviors 3 and 4, the interviewer (i.e., myself or interobserver who was not videotaped for the instructional videos) tallied the number of occurrences using tally marks (e.g., IIII) during the interview.

For Behavior 3, the interviewer tallied an occurrence every time that the participant demonstrated a smile that was directed towards the interviewer. The observer also tallied the occurrence from her point-of-view. For example, if the student smiled during the greeting of the interview, a tally was marked on the data collection sheet. After the student answered a question and smiled again, another tally was marked (i.e., “Never displayed the behavior – 0,” “Sometimes displayed behavior – 1 to 3 tally marks,” “Often displayed behavior – 4 to 6 tally marks,” and “Almost always displayed behavior – 7 or more tally marks”). This procedure was continued until the interview was over.

For Behavior 4, the interviewer tallied an occurrence every time that the student demonstrated eye contact lasting at least 1 second. A tally was also marked each time the participant looked away from the interviewer’s face and then looked back at the interviewers’ face again for at least 1 second (i.e., “Never displayed the behavior – 0,” “Sometimes displayed behavior – 1 to 3 tally marks,” “Often displayed behavior – 4 to 6

tally marks,” and “Almost always displayed behavior – 7 or more tally marks”). This procedure was continued until the interview was over. The percentage of desirable behaviors demonstrated during the job interview was calculated by dividing the obtained score by 8 and then multiplied by 100.

Experimental Design

This study used a multiple-probe, across participants design to examine the effectiveness of video modeling (VM) in teaching interviewing skills to students with ASD and whether skills learned through VM can generalize to an office setting (e.g., principal’s office or school office). There were five phases in this study: (a) pretest, (b) baseline, (c) intervention, (d) maintenance, and (e) posttest phases. In the pretest phase, the students went to an unfamiliar office at their high school to be assessed for interviewing skills. The unfamiliar office was determined after the students were chosen. In the baseline phase, data were collected to determine the current performance level of students’ interviewing skills. In the intervention phase, the VM was implemented. During the maintenance phase, data were collected on interviewing skills; however, no intervention was given to the students. Another room was used for baseline, intervention, and maintenance phases. In the posttest phase, students went to the unfamiliar office from the pretest at their school and were interviewed by the graduate student. Data were collected to determine if interviewing skills learned through VM could be generalized to an unfamiliar office setting.

Independent Variable

The independent variable was VM presented through an Apple iPad. The VM component involved using nine videos, which showed an interviewer and an interviewee demonstrating an interview process (e.g., questioning and answering).

Dependent Variable

Two dependent variables were measured in this study: (a) students' responses to seven interview questions and (b) rates of the four target behaviors (i.e., verbal greeting, initiating handshake, smiling, and eye contact) before, during, and after the mock interview. Data were collected during mock job interviews across all the phases.

Procedures

Pretest and Posttest Phases

During the pretest phase, a mock job interview took place to measure students' present level of job interview skills in a real office setting. This mock interview occurred in an unfamiliar office at the students' high school, determined after the students had been recruited. The interviewer (i.e., the actor and the graduate student from the instructional videos) sat on a chair behind the table prior to the student entering the office. When the student entered the office, the interviewer greeted the student and asked him to sit on the chair across the table. The interviewer and the student faced each other. Then the interviewer started asking the seven interview questions, and the student responded to each question. While the interviewer administered the mock interview, I collected data on both the responses and behaviors using the data collection sheets. Data collected during this phase were used to compare

with data collected during posttest phase. One session (i.e., the mock interview) occurred and it took approximately 10 to 15 minutes. The same procedures used in this phase were used in the posttest phase.

Baseline Phase

During the baseline phase, data were collected to evaluate students' present level of job interviewing skills. To create a simulated interview, I acted as an interviewer. I had the student sit across the table, facing me and then asked him the seven mock interview questions using the same interview procedures used in the pretest phase and in the videos. I asked one question at a time, and then the student answered the question. I stayed neutral and did not offer any error correction or feedback, but gave the student general praise (e.g., "good") right after the entire interview process. When three to four baseline data points (see Appendix B) showed stability in the data with little variability in performance (Kazdin, 2011), the student was moved to the intervention phase. Stability on baseline data points only applied to student responses during the mock job interview session. While baseline data on the first student were collected, baseline data were collected intermittently (i.e., probes) on the remaining students. This procedure was repeated for the remaining students. Mock job interview sessions for baseline data took place three to four times per week. Each session lasted approximately 10 to 15 minutes.

Intervention Phase

When baseline data on the first student showed stability, the student began the intervention phase. The student sat next to me and viewed the first video (i.e.,

introduction). I had an iPad ready to use, and the student only had to press the “play” button to begin the first video. The first video is an appropriate way to introduce oneself to the interviewer (e.g., initiating a handshake, sitting down in the proper way, focusing on appropriate eye contact and posture, and introducing oneself to the interviewer). After this video was viewed, I asked the student to role-play behaviors illustrated in the video. For instance, the student role-played the introduction with me (e.g., initiating a handshake and addressing me with an appropriate greeting). Also, the student demonstrated appropriate eye contact, smiling, and sitting down to begin the interview. This procedure (i.e., watching the video and then role-playing) was repeated twice with my verbal and gesture prompts (e.g., “Tom, what do you need to do now?”) and corrections (e.g., “Tom, I need you to introduce yourself to me”) as needed. After this step was completed, the student began watching the next video, which addressed responding to the first interview question. In this video, the student viewed the interviewer asking the first question and the interviewee responding to the question. After the student viewed the video, I asked the student to put the iPad aside and proceed to role play responding appropriately to the question. I asked the first question, and the student responded to the question. This procedure (i.e., watching a video and then role-playing) was repeated twice with verbal prompts (e.g., “Tom, what do you need to do now?”) as needed. The exact same procedures were used for the six videos that followed. The last video illustrated how to conclude the interview, which consisted of thanking the interviewer for the interview, initiating a handshake, smiling, and maintaining eye contact towards the interviewer. The

same procedure used for the first step was used in this step (i.e., watching a video and then role-playing twice with verbal and gestural prompts).

When all nine videos were viewed, the student was assessed with a mock job interview, which used the same procedures as in the baseline phase. Error corrections and feedback were not given to the student during this assessment. When the first student met the criteria (i.g., 80% or above in three consecutive sessions), the second student began the intervention phase. While the second student was in the intervention phase, data on the first student were intermittently collected until all participants met the mastery criterion. These procedures were repeated for the remaining students. Sessions for intervention data took place four to five times per week. Each intervention session lasted approximately 20 to 25 min.

Maintenance Phase

The maintenance phase took place to examine if the acquired skills were maintained in the absence of the intervention. After all students met the mastery criteria in the intervention phase, no intervention or assessment was given to students for 2 weeks. Following this period of no intervention, the performance levels of students' interviewing skills were assessed using the same procedures from the baseline phase. Two maintenance sessions took place. Each session lasted approximately 10 to 15 minutes.

Interobserver Reliability

Prior to beginning the study, I trained an observer (i.e., another graduate student not in the video tapes) on how to score students' responses to the interview questions and

target behaviors during pretest, baseline, intervention, maintenance, and posttest phases. The first part of the training explained the procedures of data collection. Two adults (i.e., teachers or friends) were asked to volunteer and role-play the mock interview with me. A place (e.g., classroom, conference room) was organized with a desk and two chairs to simulate an office. One of the adults acted as the interviewer and the other acted as the interviewee. The interviewer asked the seven interview questions to the interviewee. While the two volunteers were conducting the mock interview, the observer and I scored the interviewee's responses using the data collection sheets (see Appendices B and C). After we reached 100% agreement on collecting data in three consecutive training sessions, the training was discontinued. During pretest and posttest phases, I sat in the corner of the office and collected data when the graduate student was administering the mock interview. During the intervention phase, the observer was near me and collected data while I asked the questions to students. To calculate the percentage of interobserver agreement, I divided the number of agreements by the number of agreements plus disagreements, then multiplied it by 100. Interobserver reliability data were collected at least once a week during intervention phase.

Procedural Fidelity

To collect data with procedural fidelity, the graduate student observed me during the intervention phase to ensure that the intervention was implemented in the same manner across all sessions in each phase. When training the graduate student prior to the study, I pretended to deliver the intervention to an adult volunteer, and the graduate student observed and scored the accuracy of the implementation with the procedural

fidelity data collection sheet (see Appendix D). The graduate student practiced this procedure until she became comfortable with the expectations of the research study. The graduate student sat to the side of me to collect data during the intervention phase. After the graduate student was in 100% agreement with the expectations of the research study and did not have any questions concerning the study or its procedures in three consecutive training sessions, the training was discontinued. To calculate the percentage of procedural fidelity, obtained points were divided by the total possible points, and then multiplied by 100. Procedural fidelity data were collected at least once a week during intervention phase.

Social Validity

After the posttest, I created a social validity data collection sheet (i.e., interview-type questions) to interview the participants' special education teacher about whether the participants used the acquired skills in their classroom activities related to job interviewing skills (see Appendix E).

CHAPTER IV

RESULTS

Two sets of data were collected during this study: response to presented interview questions and appropriate behaviors during the interview. With regard to responses to interview questions, all students demonstrated a low performance during the pretest phase with a mean score of 37.0% (range 32.0% - 43.0%). The responses for each job interview question (see Appendix A) were limited in detail for all students. During the baseline phase, students showed a mean score of 39.3% (range 32.0% - 43.0%). After the intervention was introduced, all students improved their performance over the baseline phase with a mean score of 85.4% (range 75.0% – 96.0%). There were no overlapping data points between the baseline and intervention phases across all students. Alan and Stephen met criterion after the second session of the intervention phase and maintained their performance in three consecutive sessions, while Kevin met criterion in the first intervention session and maintained his performance throughout the intervention phase. During the maintenance phase, all students maintained their performance with a mean score of 85.7% (range 75.0% – 100.0%). During the posttest session, the students also showed improvement when compared to the pretest session with a mean score of 86.7% (range 82.0% - 89.0%). Detailed descriptions of the data for interview responses are presented for each student (see Figure 1).

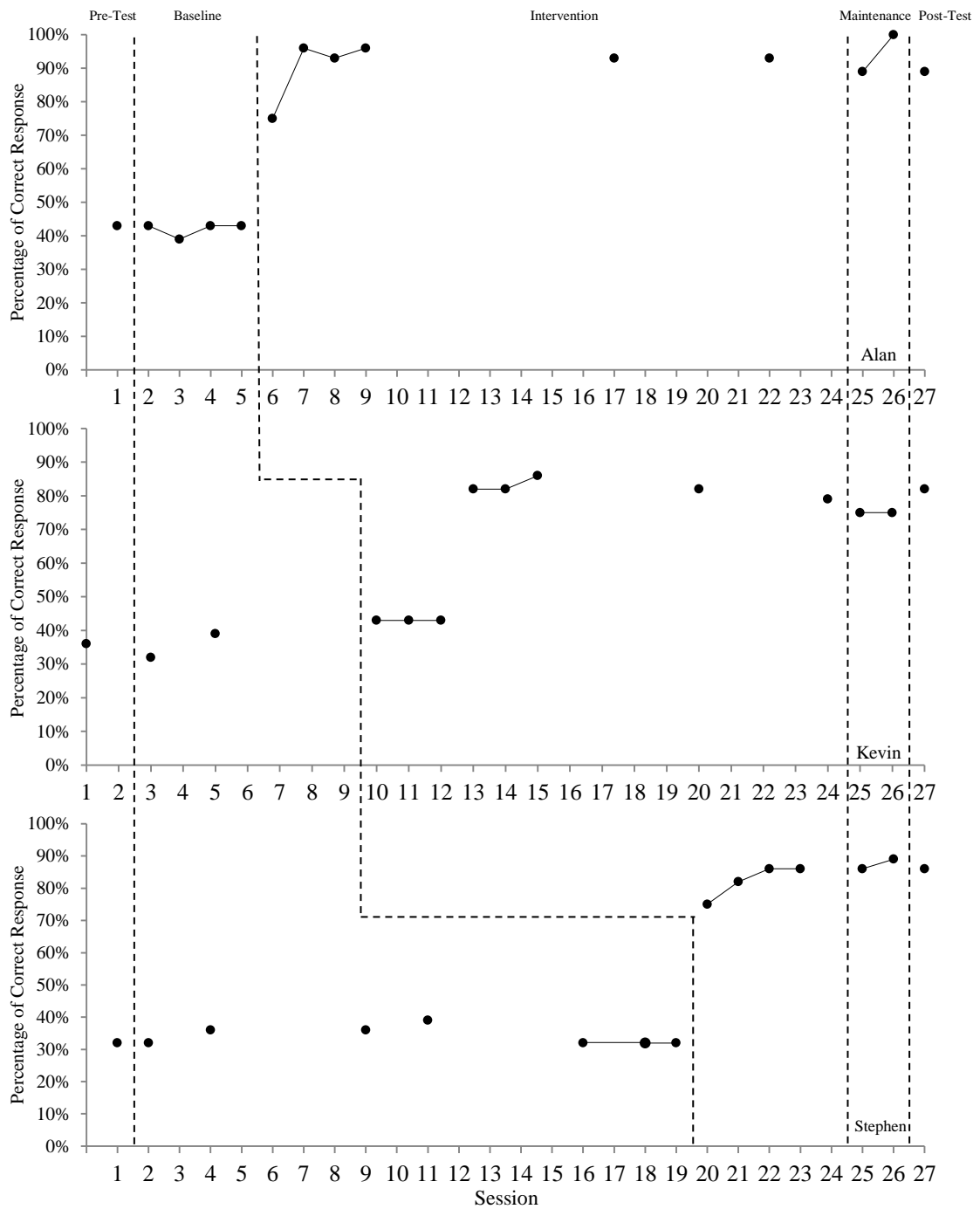


Figure 1. Correct responses to interview questions.

In terms of appropriate behaviors, all students demonstrated a mean score of 50% during the pretest phase. During the baseline phase, students showed a mean score of 62.6% (range 50.0% - 75.0%). After the intervention was introduced, all students demonstrated an improvement in their interview behaviors over the baseline phase. There were no overlapping data points between the baseline and the intervention phases across all students. Alan and Stephen both scored 100% for each intervention session. They had an overall mean intervention score of 98.9% (range 88.0% – 100.0%). During the maintenance phase, all students maintained their performance levels at 100%. In the posttest session, all students showed a significant improvement when compared to the pretest session with a mean score of 96.0% (range 88.0% - 100.0%). Detailed descriptions of the data for appropriate behaviors are presented for each student (see Figure 2).

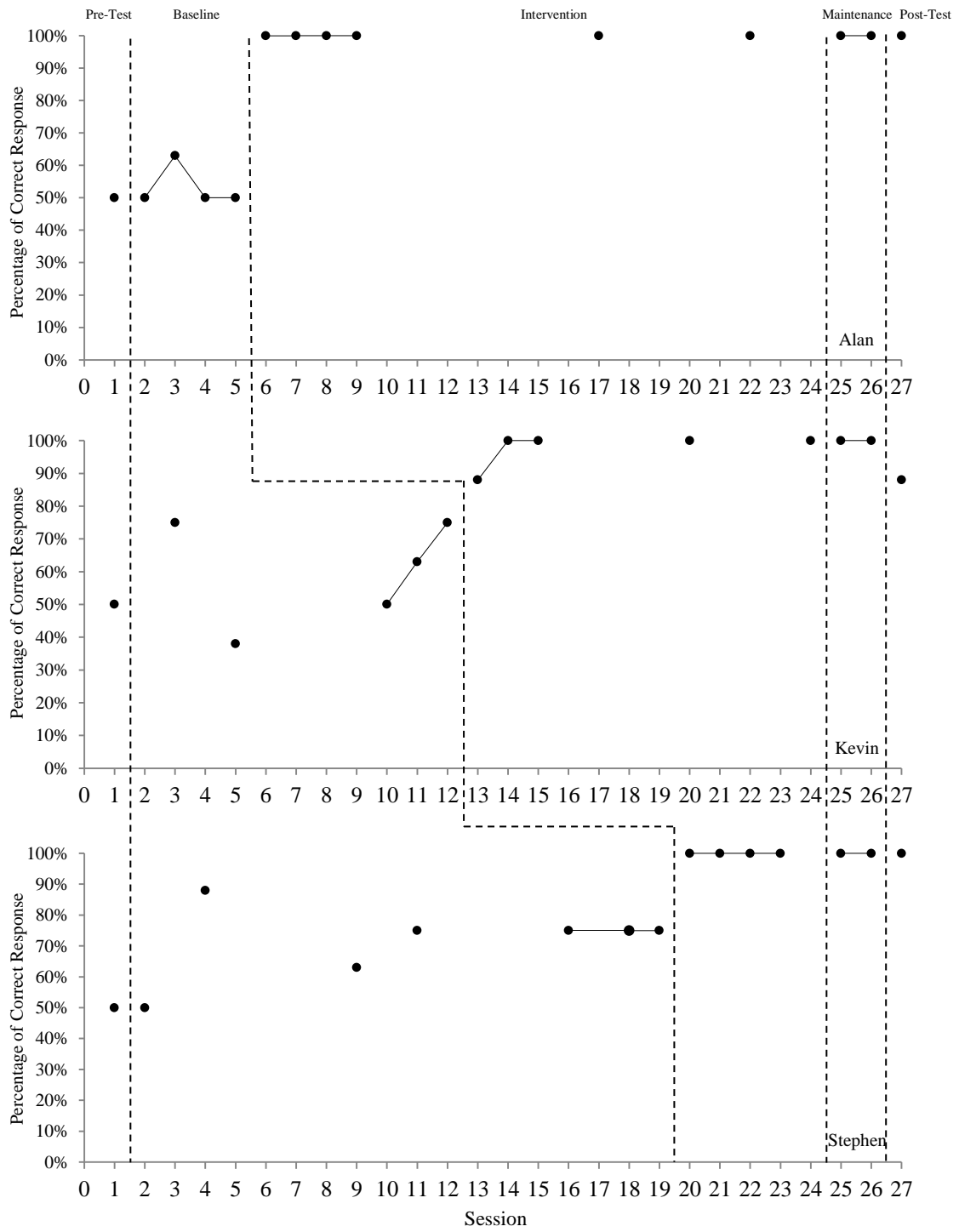


Figure 2. Appropriate behaviors during interview.

Alan

Responses to the Interview Questions

During the pretest session, Alan responded appropriately to 43.0% of the interview questions (see Figure 1). He was very limited in his responses and did not share any examples or elaborate on details. Alan completed four sessions during the baseline phase with a mean score of 42.0% (range 39.0% - 43.0%). He incorrectly responded to Questions 1 and 2. When asked Question 1, he consistently answered, "This is a good job for me." For Question 2, he answered, "I don't have any work experience." After the first intervention session, Alan's responses improved by completing statements without deviating from the topic and adding examples with details. For example, when asked Question 1, he mentioned his family in detail, his pets, and his readiness for graduation. In response to Question 2, he discussed his volunteer work at a nursing home and his responsibilities. After the session was over, Alan mentioned that he was unaware volunteer work could count as work experience. Although Alan did not meet criterion on the first intervention session (75.0%), he showed considerable improvement over his baseline sessions (43%). Alan continued to improve his responses, meeting criterion (i.e., 80.0%) on his second intervention session (96.0%) and continuing to meet the criterion in the third (93.0%) and fourth (96.0%) sessions. With a mean score of 90.0% (range 75.0% - 96.0%) during the intervention phase, Alan maintained his performance during the maintenance phase (range 89.0% - 100.0%). His score during the posttest session was 89.0%.

Appropriate Behaviors

During the pretest session, Alan presented appropriate behaviors with a score of 50.0% (see Figure 2). He did not greet or initiated a handshake before or after the mock job interview and had limited eye contact with the interviewer. In regards to the baseline phase, Alan presented appropriate behaviors with a mean score of 53.3% (range 50.0% - 63.0%). After the intervention phase, Alan demonstrated 100% appropriate behaviors and continued to demonstrate these behaviors throughout the maintenance and posttest phases. His score during the posttest session was 100.0%.

Kevin

Responses to the Interview Questions

During the pretest session, Kevin responded appropriately to 36.0% of the interview questions (see Figure 1). His answers were mildly negative towards himself, were highly personal, and deviated from the main topic. Three sessions took place during the baseline phase in which Kevin consistently scored 43.0% for each session. Kevin had difficulty answering Questions 2 and 5. When asked Question 2, Kevin responded with limited information and said the same statement (i.e., “I don’t have a job”) in each baseline session. When asked Question 5, Kevin also gave limited information in his responses (e.g., “Being polite; Set up schedules”).

After the first intervention session, Kevin improved his responses by including examples and details for each question. For example, in response to Question 2, he discussed the different chores he was in charge of around the house and talked about caring for his pets. For Question 5, he discussed how he focused on tasks and tends to be

punctual. Kevin met criterion (80.0%) in three consecutive intervention sessions with a mean score of 83.3% (range 82.0% - 86.0%). However, Kevin did not maintain his performance during the maintenance phase with a score of 75.0%.

Appropriate Behaviors

During the pretest session, Kevin demonstrated appropriate behaviors with a score of 50.0% (see Figure 2). Although he greeted and initiated a handshake before and after the mock job interview, he had limited eye contact with the interviewer. Kevin completed appropriate behaviors during the three sessions of the baseline phase with a mean score of 62.7% (range 50.0% - 75.0%). After the intervention phase, Kevin's performance in appropriate behaviors improved, reaching 100% after the second intervention session and a mean score of 94.3% (range 88.0% - 100%). Although Kevin's performance in appropriate behaviors displayed inconsistency and an upward trend during the baseline phase, his performance improved and became consistent after the intervention was introduced. He continued to demonstrate 100% of appropriate behaviors throughout the maintenance phase. His score during the posttest session was 88.0%.

Stephen

Responses to the Interview Questions

During the pretest mock interview, Stephen responded appropriately to 32.0% of the interview questions (see Figure 1). He was very limited in his responses and often answered with one to two-word responses. Three sessions took place during the baseline phase in which Stephen consistently scored 32.0% for each session. His responses for Questions 4, 5, 6, and 7 were extremely limited or off-topic. When asked Question 4, he

responded consistently on each baseline session, “I can make a lot of money.” This response was off-topic. For Questions 5 and 6, Stephen responded with the same answer, “checklist,” for each baseline session. For Question 7, he responded with, “nope,” for each session.

After the first intervention session, Stephen’s responses improved with him speaking in complete sentences and staying on-topic. For example, in response to Question 4, he discussed his attributes and stated examples supporting his response. For Question 5, Stephen elaborated on ways he could demonstrate he is a good worker. He discussed how he used a planner to keep track of things and gave examples of how he used an agenda in response to Question 6. Finally, for Question 7, Stephen asked two appropriate questions relating to the position for which he was interviewing. Although Stephen did not meet criterion (80.0%) on the first intervention session (75%), it was an improvement from his baseline sessions. Stephen’s responses met criterion during the second intervention session with 82.0%. He continued to meet criterion for the third (82.0%) and fourth (86.0%) sessions, with an intervention phase mean score of 81.3% (range 75.0% - 86.0%). Stephen maintained his performance during the maintenance phase with a mean score of 87.5% (range 86% - 89%). His posttest score was 86.0%.

Appropriate Behaviors

During the pretest session, Stephen demonstrated appropriate interview behaviors at 50.0% (see Figure 2). He did not greet or initiate a handshake before or after the mock job interview and had limited eye contact with the interviewer. Three sessions took place during the baseline phase with a steady trend for all sessions (75%). After the

intervention phase, Stephen displayed all appropriate interview behaviors (100%), and continued to demonstrate these behaviors throughout the maintenance and posttest phases. His score during the posttest session was 100.0%, compared to the pretest session (50.0%).

Interobserver Agreement and Procedural Fidelity

Interobserver agreement and procedural fidelity were assessed throughout the intervention phase. The interobserver and procedural fidelity data were collected for 45.4% of the intervention sessions across the students. The mean of interobserver agreement was 100.0% for interview responses and 80.0% for appropriate behaviors.

Social Validity

After the posttest session, the special education teacher was asked three open-ended interview questions regarding the students' use of acquired skills in their classroom activities related to JIS (see Appendix E). The teacher indicated that the students' eye contact improved during one-on-one conversations and that they seemed more comfortable expressing themselves. Kevin, in particular, had to interview with the Texas Department of Assistive and Rehabilitative Services (DARS) while going through the intervention phase. After meeting with DARS, Kevin mentioned to the special education teacher that he thought the interview was easy. According to the teacher, Kevin demonstrated confidence going into the DARS interview, an attribute he was not demonstrating prior to the intervention phase.

CHAPTER V

DISCUSSION

The purpose of this study was to examine if using VM is an effective strategy for teaching JIS to high school students with ASD. Several findings can be drawn from the current study. First, results of this study overall indicate that using VM is an effective means to teach JIS to high school students with ASD. This is consistent with the findings of previous studies (Hayes et al., 2015; Strickland et al., 2013). All of the students in this current study improved after the first implementation of the intervention. Alan and Stephen met mastery criterion after the second intervention session and continued the skills in two subsequent sessions. Kevin met mastery criterion immediately after the first intervention session and continued the skills in two subsequent sessions. Although Kevin did not maintain the acquired skills during the maintenance phase, he was able to meet criterion again on the posttest. Alan and Stephen maintained mastery criterion for both maintenance sessions.

Second, the findings of the current study demonstrated evidence of generalizability of the acquired skills to a real office setting. This is consistent with previous findings (Strickland et al., 2013). Strickland et al. (2013) simulated interviews carried out by an executive from the field of human resources in an office setting at a different physical location from where the intervention was taking place. There was a significant improvement in JIS from the first to the second simulated interview. As such,

all students showed improvement from the pretest to the posttest, with all students meeting mastery criterion on the posttest. Both Alan and Kevin demonstrated a 46% increase respectively, and Stephen showed a 54% increase over the pretest session. Therefore, all students were able to generalize JIS that they acquired to a real office setting. The findings in this study add to the existing literature.

Third, the results of this study also indicate VM is effective in improving appropriate behaviors during a job interview. These findings are congruent with previous studies that suggest VM can be an effective medium for students with ASD to acquire appropriate behaviors during a job interview (Hayes et al., 2015; Strickland et al., 2013). For example, in Hayes et al. (2015), there was a significant decrease in fidgeting after intervention was introduced. Improvement in appropriate behaviors (e.g., posture, eye contact) was also noted in Strickland et al. (2013). All students in this current study showed a significant increase in appropriate behaviors (e.g., greeting, eye contact, smiling, and handshake) after the intervention was introduced. Kevin showed inconsistency in appropriate behaviors demonstrating an upward trend during the baseline phase. However, his performance improved and became consistent after the intervention was presented. Also, the acquired behaviors were maintained through the maintenance and posttest phases, and all students demonstrated improvement in the pretest phase over the posttest phase.

Fourth, results of the current study support previous findings that portable devices are effective tools for teaching functional skills to students with ASD (Bouck, Savage, Meyer, Taber-Toughty, & Hunley, 2014). Gardner and Wolfe (2013) identified 13 studies

using VT (e.g., VM and VP) to teach daily living skills to individuals with ASD. The researchers suggested that portable devices are effective instructional tools for teaching a new skill in a convenient manner, are user friendly, and are low in cost when considering how frequently they could be used. In this current study, all the students used a portable device (i.e., iPad) to learn JIS. All students showed a significant increase in JIS after the intervention was introduced using an iPad to view the videos.

Limitations

Although this study suggested some meaningful findings, four limitations could have affected the results. First, the number of participants was limited. Only three students participated in the study. A bigger sample could confirm this finding. However, the study's sample size and findings are consistent with previous research on young adults with ASD (Strickland et al., 2013). Lindsay et al. (2015) noted similar limitations.

Second, the extent to which the results can be generalized to other settings is limited (Johnson et al., 2013). Using an office outside of the school setting could have provided better generalization results. Although students were able to generalize their acquired skills to an office environment, students may have had a level of familiarity with the office used during the pretest and posttest phases. Even though this study used an empty office situated in the high school's front office area, the students knew where the office was located and had walked past it on numerous occasions. In fact, the office door stayed open most of the school day. Nevertheless, none of the students had entered the office nor were they familiar with the furniture set up or its contents.

Third, only seven interview questions were reviewed during this study. Questions were broad in content so that they could be generalized to any job interview. However, employers will typically ask questions that are specific to job expectations, which may not necessarily be the same as those previously practiced. This, unfortunately, could lead to the student becoming nervous and unable to answer the questions appropriately.

Fourth, the interobserver agreement and procedural fidelity data were only collected for 45.4% of the intervention sessions. Although the data obtained in the intervention sessions by the interobserver were consistent with the interviewer's data, more observations were needed to have ensured procedural fidelity.

Suggestions for Future Research

The current findings suggest that there are several directions for future research. First, we should conduct more studies on using technology in teaching various functional skills (e.g., JIS) to students with ASD. Although the current study added findings to the literature on using VM for students with ASD, there is a variety of new technologies that could be used to teach these students a new skill. Goo, Maurer, and Wehmeyer (2019) stated that the use of portable smart devices (PSDs) is an effective means to teach functional skills to students with developmental disabilities (e.g., ID and ASD) and researchers should examine the effects of using new technologies in teaching functional skills to this population.

Researchers also should investigate how VM affect students' acquisition of JIS in actual settings (e.g., community stores). Although the students participation in the study generalized the JIS to the real office setting during the pre- and posttest phases; however,

it was at the student's local high school. Therefore, more studies should examine the generalizability of the skilled acquired through VM to real settings.

Conclusion

The results of this study overall confirm that VM is an effective strategy to teach JIS to high school students with ASD. The results also indicate that VM can be used effectively to teach appropriate behaviors during a job interview. In addition, the findings from this study demonstrated generalization to the real office setting. This study also adds to the previous literature on the effects of using PSDs in teaching functional skills to students with ASD. In the future, researchers should conduct more studies on teaching interviewing skills using new technology (i.e., AR, VR) to students with ASD.

REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Ankeny, E. M., & Lehmann, J. P. (2011). Journey toward self-determination: Voices of students with disabilities who participated in a secondary transition program on a community college campus. *Remedial & Special Education, 32*, 279-289.
doi:10.1177/0741932510362215
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barnard, J., Harvey, V., Potter, D., & Prior, A. (2001). *Ignored or ineligible: The reality for adults with autism spectrum disorders*. London, England: The National Autistic Society.
- Bellini, S., & Akullian, J. (2007). A meta-analysis of video modeling and video self-modeling interventions for children and adolescents with autism spectrum disorders. *Council for Exceptional Children, 73*(3), 264-287.
doi:10.1177/001440290707300301
- Bobroff, S., & Sax, C. L. (2010). The effects of peer tutoring interview skills training with transition-age youth with disabilities. *Journal of Vocational Rehabilitation, 33*, 143-157. doi:10.3233/JVR-2010-0523
- Bouck, E. C., Savage, M., Meyer, N. K., Taber-Doughty, T., & Hunley, M. (2014). High-tech or low-tech? Comparing self-monitoring systems to increase task

- independence for students with autism. *Focus on Autism and Other Developmental Disabilities*, 29(3), 156-167. doi:10.1177/1088357614528797
- Cannella-Malone, H. I., Sabielny, L. M., Jimenez, E. D., Page, E. J., Miller, M., & Miller, O. (2015). Use of continuous video prompting to teach a student with a significant disability. *Journal of Developmental and Physical Disabilities*, 27, 745-754. doi:10.1007/s10882-015-9448-y
- Chappel, S. L., & Somers, B. C. (2010). Employing persons with autism spectrum disorders: A collaborative effort. *Journal of Vocational Rehabilitation*, 32, 117-124. doi:10.3233/JVR-2010-0501
- Corbett, B. A., & Abdullah, M. (2005). Video modeling: Why does it work for children with autism? *Journal of Early Intensive Behavioral Intervention*, 2, 2-8. Retrieved from <http://files.eric.ed.gov/fulltext/EJ846467>
- Delano, M. E. (2007). Video modeling interventions for individuals with autism. *Remedial and Special Education*, 28(1), 33-42. doi:10.1177/07419325070280010401
- Gardner, S., & Wolfe, P. (2013). Use of video modeling and video prompting interventions for teaching daily living skills to individuals with autism spectrum disorders: A review. *Research & Practice for Persons with Severe Disabilities*, 38(2), 73-87. doi:10.2511/027494813807714555
- Goh, A. E., & Bambara, L. M. (2013). Video self-modeling: A job skills intervention with individuals with intellectual disability in employment settings. *Education*

and Training in Autism and Developmental Disabilities, 48(1), 103-119.

Retrieved from <http://daddcec.org/Publications/ETADDJournal.aspx>

Goo, M., Maurer, A. L., & Wehmeyer, M. L. (2019). Systematic review of using portable smart devices to teach functional skills to students with intellectual disability.

Education and Training in Autism and Developmental Disabilities, 54(1), 57-68.

Retrieved from <http://daddcec.org/Publications/ETADDJournal.aspx>

Griffith, G. M., Totsika, V., Nash, S., & Hastings, R. P. (2011). 'I just don't fit

anywhere': Support experiences and future support needs of individuals with

Asperger syndrome in middle adulthood. *Autism*, 16, 532-546.

doi:10.1177/1361311405223

Hayes, G. R., Custodio, V. E., Haimson, O. L., Nguyen, K., Ringland, K. E., Ulgado, R.

R., . . . Weiner, R. (2015). Mobile video modeling for employment interviews for

individuals with autism. *Journal of Vocational Rehabilitation*, 43, 275-287.

doi:10.3233/JVR-150775

Hendricks, D. (2010). Employment and adults with autism spectrum disorders:

Challenges and strategies for success. *Journal of Vocational Rehabilitation*, 32,

125-134. doi:10.3233/JVR-2010-0502

Higgins, K. K., Koch, L. C., Boughfman, E. M., & Vierstra, C. (2008). School-to-work

transition and Asperger syndrome. *Work*, 31, 291-298. Retrieved from

<http://content.iospress.com/journals/work>

Holmes, D. L. (2007). When the school bus stops coming: The employment dilemma for

adults with autism. *Autism Advocate*, 46, 16-21. Retrieved from

<https://www.autism-society.org/about-the-autism-society/publications/autism-advocate/>

Hurlbutt, K., & Chalmers, L. (2004). Employment and adults with Asperger syndrome.

Focus on Autism and Other Developmental Disabilities, 19, 215-222.

doi:10.1177/10883576040190040301

Jennes-Coussens, M., Magill-Evans, J., & Koning, C. (2006). The quality of life of young men with Asperger syndrome. *Autism, 10*, 403-414.

doi:10.1177/1362361306064432

Johnson, J. W., Blood, E., Freeman, A., & Simmons, K. (2013). Evaluating the effectiveness of teacher-implemented video prompting on an ipod touch to teach food-preparation skills to high school students with autism spectrum disorders.

Focus on Autism and Other Developmental Disabilities, 28, 147-158.

doi:10.1177/1088357613476344

Kandalaft, M. R., Didehbani, N., Krawczyk, D. C., Allen, T. T., & Chapman, S. B.

(2013). Virtual reality social cognition training for young adults with high functioning autism. *Journal on Autism and Other Developmental Disabilities, 43*,

34-44. doi:10.1007/s10803-012-1544-6

Kazdin, A. E., (2011). *Single-case research designs, second Edition*. New York, NY:

Oxford University Press.

Levinson, E. M., & Palmer, E. J. (2005). Preparing students with disabilities for school-

to-work transition and postschool life. *Principal Leadership, 5*(8), 11-15.

Retrieved from <https://www.nassp.org/news-and-resources/publications/principal-leadership/>

- Lindsay, S., McDougall, C., Sanford, R., Menna-Dack, D., Kingsnorth, S., & Adams, T. (2015). Exploring employment readiness through mock job interview and workplace role-play exercises: Comparing youth with physical disabilities to their typically developing peers. *Disability and Rehabilitation, 37*(18), 1651-1663. doi:10.3109/09638288.2014.973968
- Mechling, L. (2005). The effect of instructor-created video programs to teach students with disabilities: A literature review. *Journal of Special Education Technology, 20*(2), 25-36.
- Morgan, L., Leatzow, A., Clark, S., & Siller, M. (2014). Interview skills for adults with autism spectrum disorder: A pilot randomized controlled trial. *Journal of Autism and Developmental Disorders, 44*, 2290-2300. doi:10.1007/s10803-014-2100-3
- Mull, C., Sitlington, P. L., & Alper, S. (2001). Postsecondary education for students with learning disabilities: A synthesis of the literature. *Exceptional Children, 68*, 97118. doi:10.1177/001440290106800106
- Müller, E., Schuler, A., Burton, B. A., & Yates, G. B. (2003). Meeting the vocational support needs of individuals with Asperger syndrome and other autism spectrum disabilities. *Journal of Vocational Rehabilitation, 18*, 163-175. Retrieved from <https://content.iospress.com/journals/journal-of-vocational-rehabilitation/Pre-press/Pre-press>

- National Organization on Disability. (2010). *Kessler Foundation/NOD survey of Americans with disabilities*. Retrieved from <http://www.2010disabilitysurveys.org/octsurvey/dfs/surveyresults.pdf>
- Reed, F. D. D., Hyman, S. R., & Hirst, J. M. (2011). Applications of technology to teach social skills to children with autism. *Research in Autism Spectrum Disorders, 5*, 1003-1010. doi:10.1016/j.rasd.2011.01.022
- Reichow, B., & Volkmar, F. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. *Journal of Autism and Developmental Disorders, 40*, 149-166. doi:10.1007/s10803-009-0842-0
- Roux, A. M, Shattuck, P. T., Cooper, B. P, Anderson, K. A., Wagner, M., & Narendorf, S. C. (2013). Postsecondary employment experiences among young adults with an autism spectrum disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 52*, 931-939. doi:10.1016/j.jaac.2013.05.019
- Sarrett, J. (2017). Interviews, disclosures, and misperceptions: Autistic adults' perspectives on employment related challenges. *Disability Studies Quarterly, 37*(2), 6. doi:10.18061/dsq.v37i2.5524
- Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Taylor, J. L. (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics, 129*, 1042-1049. doi:10.1542/peds.2011-2864

- Smith, M. J., Bell, M. D., Wright, M. A., Humm, L. B., Olsen, D., & Fleming, M. F. (2016). Virtual reality job interview training and 6-month employment outcomes for individuals with substance use disorders seeking employment. *Journal of Vocational Rehabilitation, 44*, 323-332. doi:10.3233/JVR-160802
- Smith, M. J., Ginger, E. J., Wright, K., Wright, M. A., Taylor, J. L., Humm, L. B., . . . Fleming, M. F. (2014). Virtual reality job interview training in adults with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 44*, 2450-2463. doi:10.1007/s10803-014-2113-y
- Strickland, D. C., Coles, C. D., & Southern, L. B. (2013). JobTIPS: A transition to employment program for individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 43*, 2472-2483. doi:10.1007/s10803-013-1800-4
- Texas Education Agency, special education rules and regularions; Individuals with disabilities act, state board of education rules, commisioner's rules, Texas state laws (2016). Retrieved from http://framework.esc18.net/Documents/Side_by_Side.pdf
- Walker, Z., Vasquez, E., & Wienke, W. (2016). The impact of simulated interviews for individuals with intellectual disability. *Educational Technology & Society, 19*, 76-88. Retrieved from <https://www.j-ets.net/ETS/index.html>
- Wechsler, D. (2003). *Wechsler intelligence scale for children-fourth edition*. London: Pearson.

- Whetzel, M. (2014). Interviewing tips for applicants with autism spectrum disorder (ASD). *Journal of Vocational Rehabilitation, 40*, 155-159. doi:10.3233/JVR-140668
- Woodcock, R. W., Mather, N., McGrew, K. S. (2001). Woodcock-Johnson III tests of cognitive abilities examiner's manual. Itasca: Riverside.

APPENDIX A

List of 7 Interview Questions

APPENDIX A

List of 7 Interview Questions

Interview Questions

1. Tell me about yourself.
2. Tell me any work experiences you may have.
3. What skills and experiences do you feel are most important when working?
4. Why do you think you could be a good employee?
5. What are ways you can demonstrate you are a good worker?
6. How do you keep track of things you need to do?
7. What questions do you have for me?

APPENDIX B

Data collection Sheet for Responses to Interview Question

APPENDIX B

An Example of Data Collection Sheet for Responses to an Interview Question

Interview Responses Data Collection Sheet

Student Name: _____ Date: _____

Question 1: "Tell me about yourself."

Points/Scoring Standards	Score
<p>No Response (0 points)</p> <ul style="list-style-type: none"> • Does not respond to the question • Changes the conversation 	
<p>Poor (1 point)</p> <p><u>No</u> portion of the question was satisfied and could be characterized by 2 or more items of the following:</p> <ul style="list-style-type: none"> • Limited response • Fully off-topic response • Highly personal / inappropriate content (personal health, religion, politics, narrow interest not related to job, personal conflicts, relationship status, etc.) • Highly negative content (negative or disparaging comments about self, teachers, co-workers, peers, previous work, school, etc.) • Examples and details are negative and/or unfavorable 	
<p>Fair (2 points)</p> <p><u>Limited</u> portion of the question was satisfied and could be characterized by 2 or more items of the following:</p> <ul style="list-style-type: none"> • Incomplete response, answered only part of the question • Some deviation off topic • Limited examples and details to support response • Mildly negative references (about self, teachers, co-workers, peers, previous work, school, etc.) • Examples and details are somewhat negative and portray themselves negatively 	
<p>Good (3 points)</p> <p><u>Adequate</u> portion of the question was satisfied and could be characterized by 2 or more items of the following:</p> <ul style="list-style-type: none"> • Complete response without deviation from topic • Examples and details are relevant to the question • Adequate detail and examples support response • Examples and details are positive and portray themselves 	

positively	
<p>Excellent (4 points) <u>Fully satisfied</u> all aspects of the question and could be characterized by 2 or more items of the following:</p> <ul style="list-style-type: none"> • Examples and details provided are highly relevant to the question • Examples and details are positive and portray themselves in a very positive way • Complete response without deviation from topic 	
Total: /4	

APPENDIX C

Data Collection Sheet for Appropriate Behaviors During Interview

APPENDIX C

Data Collection Sheet for Appropriate Behaviors during Interview

Behavior Data Collection Sheet

Student Name: _____ Date: _____

Behavior: Definition	Score: Circle one
<p>1. Verbal Greeting during Introduction and Closing: A polite word related to welcome (e.g., “Hello, How are you?”, “Nice to meet you.”).</p>	<p>0. Never displayed the behavior 1. Displayed behavior</p>
<p>2. Initiating Handshake during Introduction and Closing: Extends hand towards interviewer at appropriate distance.</p>	<p>0. Never displayed the behavior 1. Displayed behavior</p>
<p>3. Smile during Interview: At least smiling within context of greeting, handshake, introduction, and/or answering questions that is directed towards the interviewer.</p>	<p>0. Never displayed the behavior 1. Sometimes displayed behavior (1-3 times) 2. Often displayed behavior (4-6 times) 3. Almost always displayed behavior (7 times or more) Tally: _____</p>
<p>4. Eye contact during Interview: Looking into the interviewer’s eyes, or at a point on their face (mouth) to approximate eye contact during handshake, verbal exchange (e.g., being questioned and answering) for at least 5 seconds.</p>	<p>0. Never displayed the behavior 1. Sometimes displayed behavior (1-3 times) 2. Often displayed behavior (4-6 times) 3. Almost always displayed behavior (7 times or more) Tally: _____</p>
<p>Total: /8</p>	

APPENDIX D

Data Collection Sheet for Procedural Fidelity

APPENDIX D

Data Collection Sheet for Procedural Fidelity

Procedural Fidelity Data Collection Sheet

Student Name: _____ Date: _____

Observer: _____

Procedure	Score: Circle one
1. Placed iPad on the table in advance, with the video clip ready to play.	Y / N
2. After the participant viewed each video clip, the participant role-played the video clip. (e.g., watch video clip, then role-play, watch video clip again, then role-play again. Only two times for each video clip.)	Y / N
3. When the participant needed assistance to begin the interview, appropriate verbal or gesture prompts were given to him or her (i.e., Tom, what do you need to do now?)	Y / N
4. When the participant needed assistance demonstrating a target behavior, the student will be given a reminder. <i>“Remember what the actor in the video clip demonstrated.”</i>	Y / N
5. Gave the student neutral praise after each video clip. <i>“Good job!”</i>	Y / N
6. Gave the student neutral praise for the completion of the intervention <i>“Good job! Thank you for your hard work!”</i>	Y / N

APPENDIX E

List of 3 Social Validity Questions

APPENDIX E

List of 3 Social Validity Questions

Social Validity Questions

1. From talking to the students, what part of this study did they say was most helpful?
2. Do you feel this study helped your students improve their job interviewing skills? If so, can you please discuss some examples?
3. What behaviors did you see improve after the study was completed?