

TEACHING SELF-ADVOCACY FOR DISABILITY RIGHTS TO INDIVIDUALS WITH  
INTELLECTUAL AND DEVELOPMENTAL DISABILITIES THROUGH A BEHAVIOR  
SKILLS TRAINING APPROACH

By

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## ABSTRACT

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Self-advocacy is the ability to effectively support one's own rights. If individuals with intellectual and developmental disabilities (IDD) are not provided with specific training regarding their rights, they may not be able to effectively advocate for themselves. Self-advocacy consists of four specific components, including: 1) Knowledge of Self; 2) Knowledge of Rights; 3) Communication; and 4) Leadership. Limited self-advocacy research has focused on Knowledge of Rights and developing teaching procedures to educate individuals with IDD on their disability rights. The purpose of this study was to examine the effectiveness of a self-advocacy training designed to teach disability rights in an employment setting. Using a non-concurrent multiple baseline design across participants, 9 students with IDD participated in a video-based behavior skills training to learn their disability Accommodation Rights. Prior to intervention, participants displayed variable knowledge of disability rights as evidenced by performance on a video assessment of scenarios of rights violations and non-violations. Following intervention, 8 of the 9 participants increased correct responding on the video assessment. Six participants required additional supports (e.g., feedback and/or booster sessions) to enhance accuracy, while 1 participant was excluded from the study. The implications of these findings are discussed

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## INTRODUCTION

Individuals with intellectual and developmental disabilities (IDD) experience difficulty finding and maintaining employment. In fact, in 2015 the U.S. Department of Labor, Bureau of Labor Statistics (2016) estimated that compared to 65% of persons without disabilities only 17.5% of individuals with a disability were employed. These low employment percentages may be a reflection of a high number of attitudinal (e.g., stereotyping) and institutional (e.g., lack of education) barriers to successful employment experienced by individuals with disabilities. Not only are barriers to obtain employment an issue, but individuals with disabilities continue to experience barriers once they are employed. Within the employment setting, individuals with IDD often face discrimination and violations against their legal rights (Hidegh & Csillag, 2013; Kulkarni & Lengnick-Hall, 2014; Procknow & Rocco, 2016; Rumrill, 1999).

While several programs now exist to address the barriers to obtaining employment (e.g., Project SEARCH), fewer programs have been developed to help individuals with disabilities respond to barriers they experience once in the employment setting. Individuals with IDD cannot carry out and advocate for their legal rights until they understand their rights. Lack of knowledge regarding their legal rights is not a causation of having a disability, but rather a lack of experience, education, and application (Sobsey, 1994). By gaining the knowledge of disability legislation and the legal rights afforded to employees with a disability, individuals with IDD may be able to overcome some of the barriers to successfully maintaining employment.

### **The Americans with Disabilities Act- As Amended**

Title I of the Americans with Disabilities Act-As Amended (ADAAA, 1990) was implemented to protect individuals with disabilities from discrimination in employment settings. ADAAA regulates that no employer will discriminate “against a qualified individual on the basis

of disability in regard to job application procedures, the hiring, advancement, or discharge of employees, employee compensation, job training, and other terms, conditions, and privileges of employment” (ADAAA, 1990, Sec. 12112). More specifically, section 12111 of the ADAAA (1990) states that employers must give reasonable accommodations to individuals who disclose their disability during both a job interview and within the job setting, such that individuals with disabilities are afforded the same benefits as those employees without disabilities. For example, facilities and training must be accessible, employees with disabilities have the right to modified work schedules, and they have the right to request job task modifications. Unfortunately, regardless of the legislation that is in place, individuals with disabilities still routinely experience rights violations (Feldman et al., 2012).

Individuals with IDD also experience discrimination within the employment setting in regard to issues of privacy, respect, and equality. These rights are either denied or violated based on the idea that individuals with IDD do not have the ability to regulate and control these aspects of their own lives (e.g., they are viewed as less ‘able’ than their peers who do not have disabilities). This social construct of the rights and abilities of individuals with IDD has serious negative impacts on fostering independence of individuals with IDD, specifically within the vocational setting (Owen et al., 1998). Further, only 40% of Americans with disabilities are aware of the ADAAA (White, Thomson, & Navy, 1997), making it difficult for them to know what rights they have and what they can do to combat workplace discrimination. Thus, it is crucial to not only teach individuals with IDD about their rights, but to also ensure they are able to determine when their rights are being violated. Such a focus requires specific training to help individuals with IDD to first understand and to then be able to advocate for their rights.

## **Self-Advocacy**

Self-advocacy is an individual's ability to understand their own rights and responsibilities as a member of society, to independently make life decisions, and to stand up for what is undeniably just (Hammer, 2001; Merchant & Gajar, 1997; Rumrill, 1999). In a recent review of the literature on self-advocacy training for individuals with IDD, Test, Fowler, Brewer and Wood (2005) produced a conceptual framework of self-advocacy that includes four key components: 1) Knowledge of Self; 2) Knowledge of Rights; 3) Communication; and 4) Leadership. Within this framework, the authors identified that Knowledge of Rights is not often addressed within self-advocacy trainings; only 32% of studies evaluated the effects of an intervention that taught Knowledge of Rights and only one was based on employment rights (Test et al., 2005).

Advocacy is essential to independent living and the transition from secondary to post-secondary or vocational settings for individuals with disabilities (Merchant & Gajar, 1997). Just as students with disabilities require direct training in academic skills, training is also needed to address functional and independent living skills. Unfortunately, self-advocacy skills are not often addressed in the secondary school system; 86% of teachers reported that teaching self-advocacy skills are important but most did not provide specific instruction or did not know how to teach these skills (Mason, Feld, & Swailowsky 2004). As a result, students with IDD must depend on educators and other professionals to advocate for them (Durlak, Rose, & Burlack, 1994; Rose, Friends, & Farnum, 1988). As students with IDD transition from the education system--where others initiate accommodations to help improve their lives-- they enter into a post-secondary system where they are required to advocate for their own rights and accommodations. Training,

then, should focus on preparing individuals with IDD to advocate for their own rights (Balcazar, Fawcett, & Seekins, 1991; Test et al., 2005; Rumrill, 1999; White, Thomson, & Navy, 1997).

### **Self-Advocacy Training**

A small body of research has been conducted to develop and evaluate the impact of interventions to teach self-advocacy skills (see Merchant & Gajar, 1997 and Test et al., 2005 for a review), but few have focused on specifically teaching Knowledge of Rights in the employment setting. One exception is a training conducted by Sievert, Cuvo, and Davis (1998) to teach legal rights related to personal rights, community rights, human service rights, and consumer rights to four individuals with disabilities. Training consisted of multiple group sessions to teach the rights and criteria required to be entitled to that right. Thus, using 30 video scenarios, textual cues, and verbal responses participants were taught to discriminate between situations in which their rights were and were not violated. Participants were then taught strategies to address rights violations. After training, participants were able to discriminate with 98% accuracy and could respond to redressing rights violations with nearly 100% accuracy. As the first study to examine a procedure to effectively teach Knowledge of Rights to adults with disabilities, this study provides a guideline for effective teaching procedures using video scenarios and a behavior skills training platform. Since its publication in 1988, however, laws and regulations have changed and no recent publications have addressed similar issues for job accommodations.

More recently, Feldman and colleagues (2012) developed a health self-advocacy training for individuals with intellectual disability to increase health knowledge and health rights. Similar to Sievert and colleagues (1998), these authors used video scenarios to teach participants to discriminate between a rights violation and a non-violation. Participants played a game in which

they took turns drawing a card that contained a number corresponding to a specific video. The participant then watched the 30s video and indicated whether the video depicted a rights violation or not. If the participant answered correctly, their game piece was moved forward; if the participant answered incorrectly, the researchers prompted a correct response and moved on to the next player.

Pre and post testing measures were contrived of 12 video scenarios, evenly divided amongst the health rights: rights, respect and responsibility, and problem and non-problems. Out of these videos, 6 were untaught videos used for generalization. Videos were chosen at random and shown to each participant on a computer: Feedback was not provided in the pre-testing assessment; however, feedback was provided in the post- and generalization assessments. Compared to pretest scores of 50-60% correct responding, participants obtained average scores of 85-95% correct responding post-intervention. Generalization probes to both untrained scenarios and *in situ* health interviews revealed an increase from 60% to 80% correct responding. These results provide further evidence that a training package delivered to a small group of individuals with an intellectual disability through a behavior skills training model leads to improvement in the knowledge of health rights, and the ability to discriminate rights violations and non-violations.

### **Behavior Skills Training**

Both the above studies used a behavior skills training (BST) approach in their intervention strategies. BST consists of a 4-part sequence including direct instruction, modeling, behavioral rehearsal, and feedback. Instruction consists of written or verbal teaching to explain the new behavior of interest and to educate the learner on how to perform the behavior. Modeling is a demonstration of the behavior, performed by the instructor or through a video

model, to further explain the instructional component and for the learner to see how the behavior is performed. Behavior rehearsal then incorporates the learner in performing the skill being taught, providing multiple opportunities for practice. Finally, feedback is provided in response to the learner's performance of the skill being taught (rehearsal). Positive feedback is provided contingent on the correct application of the skill, and corrective feedback is provided to assist the learner in achieving correct responding (Miltenberger, 2004).

The effectiveness of BST has been examined in relation to teaching new skills in various domains including but not limited to social skills, staff training, safety skills, conversational skills, and other fundamental skills of independent living (Barnes, Dunning, & Rehfedlt, 2011; Beck, & Miltenberger, 2009; Bergstorm, Najdowski, Alvarado, & Tarbox, 2016; Bornstein, Bellack, & Hersen, 1977; Fisher, Burke, & Griffin, 2013; Gathridge et al., 2004; Geaudins, Rehfeldt, DeMattei, & Scaglia, 2012; Gianoumis, Seiverling, & Sturmey, 2012; Rosales, Stone, & Rehfeldt, 2009; Sarokoff, & Sturmey, 2004). Research also demonstrates that BST can be used in conjunction with video-modeling to provide additional feedback and teaching in the successful acquisition of new behaviors (Boyer, Miltenberger, Batsche, & Fogel, 2009; Charlop, & Milstein, 1989; Kelley, & Miltenberger, 2016). As mentioned previously, Sievert and colleagues (1998) and Feldman and colleagues (2012) both used video technology within BST to teach self-advocacy skills to adults with IDD.

Overall, both studies successfully used video-based instruction and BST to teach individuals with IDD self-advocacy skills and to discriminate between rights violations and non-violations. These studies implemented teaching procedures within environments that were conducive to training (e.g., group homes, or community centers), but opportunities for practice and application post-intervention in generalization settings were limited. It is vitally important

that individuals with disabilities not only gain knowledge of their rights, but that they also generalize this knowledge to specific situations within their current work environment.

### **Current Study**

Given the changes in ADAAA and the need for more current and effective self-advocacy interventions, the current study was conducted to examine the effectiveness of a self-advocacy training to teach the knowledge of accommodation rights in an employment setting to adults with IDD. Using a BST package with video-based instruction, the current study taught adults with IDD to identify accommodation rights violations and non-violations in a vocational setting. The research questions were:

1. Can students with IDD identify legal rights violations and non-violations depicted in video scenarios following a one-week video-based BST procedure?
2. Does completion of a one-week video-based BST procedure lead to generalization of the ability to identify rights violations and non-violations and to justify their response at participant's individual work settings?

## **METHODS**

### **Participants**

Participants included nine young adults with IDD between 18 and 26 years old who attended an alternative school-to-work transition program (Project SEARCH) in which they were placed in 3 different vocational internship sites across a large University campus for 10-12 weeks per site. Students consistently received constructive feedback within the vocational setting (via job coaches) and during classroom instruction before and after work (via special education teacher). A typical day for a student was comprised of classroom instruction from 8:00-9:00 AM, unpaid internship experience from 9:00 AM – 2:00 PM, and classroom instruction from 2:00-2:30 PM. Students were taught different job-related skills in the community-based transition program for 1 year, after which they graduated from high school and entered paid employment.

Inclusion criteria for the current study consisted of 1) a diagnosis of intellectual or developmental disability; 2) enrollment in the community-based alternative school-to-work transition program; and 3) agreement to participate in the study.

### **Setting**

All sessions were conducted in the school-to-work transition program classroom which was located on large University campus. Sessions were conducted in groups of 2-3 participants, either before or after they completed their internship for the day. Training sessions were conducted for five consecutive weekdays and lasted approximately 45-50 min. per session. Baseline and post-intervention video assessment probes were conducted on various days throughout the work week and lasted on average 844.32 s, with a range of 140 s to 4,478 s (note: three assessments were removed from this calculation as they were deemed outliers). The



primary investigator conducted all trainings, feedback sessions, and booster sessions. A second researcher assisted with administering video assessment probes and collecting fidelity data.

## **Materials**

For baseline and post-intervention video assessment probes, materials included a GoPro for recording video vignettes and MacBook or Google Chrome laptop. The laptops were used to display the video assessment probes through the online survey platform, Qualtrics. Participants wore headphones during the baseline and post-intervention video assessment probes.

For training, materials included a MacBook Pro laptop or iPad and a PowerPoint presentation. The laptop was used to display the PowerPoint presentation which included the rationale for teaching the skill, an explanation of each law, and the specific rights under each law.

The researcher also created four handouts to use as teaching materials and permanent prompts during intervention and post-intervention. Two flowcharts (one with text for readers and one with pictures for non-readers; see Figures 1 and 2) were developed to assist the student through the decision-making process in determining if a law was violated against a person with a disability who asked for an accommodation. The participants were taught to use the flowchart to help them determine if there was a law violation or not. Specifically, participants worked through the flowchart by answering a series of questions, with the answer to one question (yes/no) leading the participant to the next question until all three questions were answered. After working through the flowchart, the student was able to determine if the scenario depicted a violation or a non-violation. Two cheat sheets (one with text and one with pictures; see Figures 3 and 4) were also created to help participants remember the main points within each

Accommodation Law. Again, participants were taught to refer to this sheet to help determine whether or not a violation had occurred.

### **Experimental Design**

A non-concurrent multiple baseline design across participants was used to assess experimental control of the legal rights training and teaching materials on participants' ability to identify rights violations and non-violations.

### **Dependent Variables and Response Measurement**

The dependent variable was performance on a video assessment in which participants were asked to determine whether scenarios depicted violations or non-violations of disability laws and rights. To develop the assessment, the laws outlined by the ADAAA were first reviewed to identify those laws and rights relevant to individuals with IDD in a vocational setting. Five legal rights were selected, within the Accommodation Laws, to teach during intervention. See Table 1 for definitions.

Using these definitions, 50 scenarios of violation and non-violations were written and then videos were created. Specifically, for each Accommodation Right, five scenarios portraying a violation of the right and five scenarios portraying a non-violation of the right were created. A rights non-violation was defined as: "when an individual's accommodation request was validly denied". A rights violation was defined as: "any time an individual's accommodation request was invalidly denied, violating the legal right of that individual under the ADAAA". Each video included a voice-over introduction, brief video scenario, voice-over conclusion, and question. During the video assessment, the video began with a voice-over introduction in which the viewer was told whether the individual asking for an accommodation *disclosed* or *did not disclose* their disability. Next, a scenario was depicted in which a person with a disability (actor) asked their

boss (actor) for an accommodation at work (see Table 1 for a list of Accommodations Laws used in the video scenarios). At the conclusion of the video, a voice-over and text indicated if the request would cause *undue hardship* to the employer and/or any other information pertinent to the specific accommodation request. Once the video scenario was complete, the participant was asked to answer the question, *Did the employer violate the rights of the employee?* and the participant was instructed to select *yes or no*. Each video lasted between 30 s and 1 min.

For generalization sessions, 10 new videos per student were created. The scripts for these scenarios were written to reflect situations specific to the student's current internship placement. In total, 2 videos per Accommodation Right were created, with one scenario portraying a violation and one scenario portraying a non-violation for each right.

### **Baseline and Post-Intervention Video Assessment Probes**

For each baseline and post-intervention video assessment probe, 10 of the 50 videos were randomly selected for participants to view. Randomization was programmed into the Qualtrics online survey platform, such that randomization of the videos occurred across the 5 Accommodation Rights categories, and within each accommodation request (violation vs non-violation). For example, with the Accommodation Right category "*Job Restructuring*" ten videos had been created with 5 depicting a rights violation and 5 depicting a rights non-violation. Qualtrics was programmed to randomly select 1 of the 5 rights violation videos and 1 of the 5 rights non-violation videos to be displayed during any given assessment. This procedure was then replicated for the remaining four Accommodation Right categories.

After viewing each video, participants were asked to determine whether the scenario depicted a violation or non-violation of the individual's rights. Participants received 1 point for each correct answer (e.g., correctly indicated whether the scenario depicted a violation or non-

violation). Participants did not receive a point if they answered incorrectly. Total scores were calculated with scores ranging from 0-10 for each video assessment probe. The dependent variable was the percentage of correct responses. Percent correct was determined by dividing number of correct answers by 10, multiplied by 100.

## **Procedures**

**Baseline.** Baseline video assessment probes were conducted in a group setting with all participants working on individual laptops while wearing headphones. During each video assessment probe, the participants were instructed to click a link that opened a survey through the online platform, Qualtrics. Participants were then instructed to watch each video and to indicate whether each scenario depicted a rights violation or non-violation. Specifically, the researcher first ensured that the participants were attending to the computer screen and then told them to begin the survey. The participants then pressed the button to make the first video play. When the video ended, the question, *“Did the employer violate the rights of the employee?”* was displayed and participants were given the option to click ‘Yes’ for a violation or ‘No’ for a non-violation. Once the participant responded to the first video, the participant pressed play on the next video. This process continued until the participant viewed and rated all 10 videos. During at least one baseline probe, each participant was provided with the teaching materials that would be accessible during and post intervention.

A percentage of correct responding was calculated and graphed at the end of each probe. Participants were not aware of the nature of the training and no explanation of Accommodation Rights were provided. Participants were simply told that they would be watching videos of people, and then asked to answer questions about their legal rights. Feedback was not provided.

Non-contingent praise and attention was provided for completion of the assessment and overall participation.

**Intervention.** The intervention consisted of a 5-day training during which a group of 2-3 participants was taught the 5 specific rights under the Accommodation Law. Specifically, one right was introduced and taught each day through BST, involving video models and verbal discussions using a PowerPoint presentation. Teaching materials (flowchart and cheat sheet) were used to display the steps participants should use to help determine if a right was violated or not (see Figures 1-4).

On the first day of intervention, the researcher explained the purpose of the study and the importance of self-advocacy and legal rights identification, and then began the PowerPoint presentation. Participants were first introduced to the definitions of the ADAAA and Reasonable Accommodations. Participants were then given the flowchart and cheat sheet to be used as a guide while the researcher discussed the importance of disclosure and the concept of undue hardship. Next, the first Accommodation Law was introduced (Job restructuring), describing the definition and components within the law. Following the instructional phase, the participants watched a video scenario while the researcher modeled how to work through the teaching materials (flowchart and cheat sheet). After the video was finished, the researcher and participants discussed the scenario and the reasons for why the scenario depicted either a rights violation or non-violation. Participants then watched a second and third video and collectively worked through the flowchart and cheat sheet to determine if a right was violated or not violated within each scenario. Contingent feedback was provided during this phase. If any participant answered incorrectly the researcher restated the question and provided a prompt to the participant, referring to the teaching materials to help them determine the correct response (i.e.

“refer to this section on your flowchart”). If the participant was still incorrect, the researcher walked the participant through the teaching materials and explained how to arrive at the correct response based off of the information provided in the scenario. Positive verbal praise and attention was provided in the form of contingent and non-contingent feedback, for participation and correct responding.

Before completion of the session, each individual participant was asked to listen to one final scenario as it was read aloud. The participant was expected to listen to the scenario and to use the teaching materials to arrive at the conclusion of whether the scenario depicted a rights violation or not. Following completion of the session, participants were asked to return all teaching materials to the researcher (to minimize carry over of knowledge to other participants) and were told to choose a prize item (e.g., pen, notepad, etc).

Each successive training started with a review of the previous lesson, a review of the flowchart and cheat sheet and then the introduction of the next Accommodation Law. An example outline of the PowerPoint presentation is provided in Table 3. Accommodation Laws were presented in the following order: (1) Job restructuring; (2) Leave; (3) Modified or Part-time schedules; (4) Modified workplace policies; and (5) Reassignment. Training continued until all 5 rights were taught.

The first three participants (Doug, Chris, and Kailie) began intervention after each participant had completed 3-5 baseline video assessments, while the other six participants remained in baseline. After receiving 5 days of intervention, Doug, Mitch, and Kailie moved to post-intervention, followed by maintenance and generalization; three additional participants, Holden, Kathryn, and Mitch then began intervention, and the final three participants, Bethany,

Bridget, and Zeik remained in baseline. This schedule was consistent until all participants completed all phases of the study.

**Post-intervention.** Post-intervention assessment probes were administered the same as baseline, except that participants had access to the teacher materials. Feedback was initially not provided during the post-intervention video assessment and praise and attention was non-contingent on the completion of the assessment and overall participation. At least one probe was conducted during post-intervention without the access to teaching materials. Participants completed post-intervention probes 2-3 times per week until stable responding was observed.

**Feedback Session.** Visual analysis of the data indicated that some participants would benefit from receiving feedback. If a participant's accuracy on the video assessment did not increase or if responding was variable, feedback sessions were implemented. During each feedback session the researcher sat next to the participant while he or she was taking the test with the access to teaching materials. After the participant answered each of the 10 video assessment questions, the researcher provided contingent feedback. For example, if the participant answered the scenario correctly, the researcher stated "Yes that is correct" and then described why. If the participant answered the scenario incorrectly, the researcher stated "No, let's review this again" and then replayed the video and worked through the teaching materials with the participant to help arrive at the correct answer. Feedback sessions were implemented until stable responding was observed and participants were then moved back into post-intervention probes.

**Generalization and Maintenance.** Maintenance was collected at least once a week following the completion of the post-intervention assessment. Maintenance sessions were identical to post-intervention video assessment probes with the access to teaching materials. If at

any point a participant fell below 80% responding in the maintenance phase a booster session was administered (described below).

Post-intervention generalization probes were conducted individually. For this assessment, 10 new videos were created that directly related to the participants' current internship location. Placements included Culinary (food service), Banking (clerical), Gardening (labor), and Pet research (veterinarian). Similar to the video assessment probes, the participant was instructed to open a survey through the online Qualtrics platform, to watch the videos, and to indicate whether each scenario depicted a rights violation or non-violation. The researcher then verbally asked the question "*Why.*" Participants responded verbally, and the researcher annotated their responses. Participants had access to all teaching materials during this assessment. A percentage of correct responding was calculated and graphed at the end of the session. Percent correct was determined by dividing the number of correct responses by 10, multiplied by 100. No feedback was provided and non-contingent praise and attention was provided for participation. Refer to Table 3 for example scenarios used for generalization.

**Booster Sessions.** The researcher conducted a booster session with any participant who scored below 80% accuracy during maintenance probes. For booster sessions, the researcher reviewed the 5 Accommodation Laws with the student in an individual 30-45 min session. The research also reminded the participant how to use the teaching materials (flowchart and cheat sheet) and practiced using the materials while reviewing the intervention training videos.

**Social Validity.** All participants completed a social validity questionnaire designed to evaluate the usefulness, relevance, and the outcomes of the intervention on teaching self-advocacy and Accommodation Rights under the ADAAA. Each participant completed the social validity questionnaire individually with the researcher who read all questions aloud and



answered any requests for clarification. Participants rated each question on a Likert scale from 1 ('agree') to 4 ('disagree'). Refer to Table 4 for specific questions.

**Interobserver Agreement and Procedural Integrity.** Interobserver Agreement (IOA) was collected by an outside researcher who was asked to complete the baseline/post-intervention and generalization video assessments. The outside researcher's scores on the assessments were compared to those scores programmed in Qualtrics. IOA was calculated using an event recording system, taking the total number of agreements divided by the total number of agreements plus disagreements, yielding the IOA score for that measure. IOA on both assessments was 100%.

Procedural Integrity (PI) was collected during 30 percent of training sessions. PI was calculated using a procedural integrity checklist of the intervention procedures to ensure consistent and reliable administration (Figure 5). PI was 100%.

## RESULTS

The first three participants, Doug, Holden, and Bethany are depicted in figure 6, the second three participants, Chris, Kathryn, and Bridget are depicted in figure 7, and last three participants, Kailie, Mitch, and Zeik are depicted in figure 8. Six of the nine participants displayed increased accuracy following intervention. Despite initial improvements, four participants required feedback sessions because of declining or unstable performance and two additional participants required feedback because they did not display increased accuracy following intervention. Finally, three participants required booster sessions after their performance dropped during maintenance.

### **Doug, Holden, and Bethany**

**Doug.** During baseline probes without teaching materials, Doug responded with an average of 55% (range: 50%–60%) accuracy across 4 probes. When the teaching materials were available (1 probe) Doug scored 40% correct. Immediacy of effect was observed as a 50% increase in correct responding post intervention. After intervention, Doug's average score increased to 70% (range: 70%-90%) across 3 probes with teaching materials and 70% when they were removed. Despite this improvement, Doug's performance consistently declined across the first 4 probes and so it was determined that Doug required feedback sessions before completing additional probes. Doug's average performance during feedback was 90% accuracy across three sessions (range: 80%–100%). Following feedback, Doug's average score increased to 81.67% (range: 60%–100%) when teaching materials were available and 70% when teaching materials were removed. Despite this increase, Doug's performance remained highly variable and so an additional feedback session was implemented between sessions 30 and 33. Doug achieved 80% accuracy in the feedback session and his performance increased and stabilized to an average

score of 90% (range: 70%-100%) accuracy following the second feedback session. Due to the program's spring break, Doug was unable to progress to maintenance and generalization.

**Holden.** During baseline probes without teaching materials, Holden responded with an average of 46.67% (range: 40%–60%) accuracy across 3 probes. When the teaching materials were available (2 probes) Holden scored 45% (range: 40-50%) correct. No immediacy of effect was observed post intervention; Holden had an average score of 40% (range: 30-50%) accuracy across 3 probes. Due to Holden's poor performance, it was determined that Holden required feedback sessions before completing additional probes. Holden's average performance during feedback sessions was 92.5% (range: 80%–100%) accuracy. Following feedback, Holden's average score increased to 92.5% (range: 90%–100%) when teaching materials were available and 70% when they were removed. Once stable responding was observed, Holden was moved to maintenance where his average score was 83.33% (range: 70%-100%) accuracy. Because he scored less than 80% on a maintenance probe, a booster session was administered between session 37 and 39. Given the timing (students were leaving on spring break), Holden completed the generalization probe following the booster session and scored 100% correct.

**Bethany.** During baseline probes without teaching materials, Bethany responded with an average of 46% (range: 30%–70%) accuracy across 5 probes. When the teaching materials were available (3 probes) Bethany scored an average of 60% (range: 40%-50%) correct. No immediacy of effect was observed post intervention; Bethany's average score was 46.67% (range: 30%-60%) across 3 probes when teaching materials were available. Due to Bethany's poor performance post-intervention, it was determined that Bethany required feedback sessions before completing additional probes. Bethany's average performance during feedback was 93.33% (range: 80%–100%). Following feedback, Bethany improved to 73.33% on all probes

when teaching materials were accessible. Due to spring break, Bethany was unable to progress into maintenance or generalization.

### **Chris, Kathryn, and Bridget**

**Chris.** During baseline probes without teaching materials, Chris responded with an average of 37.5% (range: 20%–60%) accuracy across 4 probes. When the teaching materials were available (1 probe) Chris scored 50% correct. Immediacy of effect was observed as a 40% increase in correct responding post intervention. After intervention, Chris's average score increased to 73.33% (range: 50%-90%) across 3 probes, when teaching materials were available and 70% when they were removed. Despite this improvement, Chris's performance consistently declined over the first 4 probes and so it was determined that Chris required feedback sessions before completing additional probes. Chris's average performance during three feedback sessions was 86.67% (range: 70%–100%). Following feedback, Chris's average score increased to 96% (range: 90% –100%) when teaching materials were available and 100% when teaching materials were removed. Once stable responding was observed, Chris was moved to maintenance, where his score remained 100% correct across 4 probes. Chris left early for the program's spring break and therefore was not able to progress to generalization.

**Kathryn.** During baseline probes without teaching materials, Kathryn responded with an average of 82.5% (range: 70%–100%) accuracy across 4 probes. When the teaching materials were available (2 probes) Kathryn scored 80% (range: 70%-90%) correct. Immediacy of effect was observed as a 10% increase in correct responding post intervention. After intervention, Kathryn's average score increased to 98.57% (range: 90%-100%) accuracy when teaching materials were available and 90% when they were removed. Given her stable performance,

Kathryn was moved to maintenance after session 27, where she maintained 100% accuracy. On session 39 Kathryn completed the generalization probe and scored 100% accuracy.

**Bridget.** During baseline probes without teaching materials, Bridget responded with an average of 28% (range: 10%–50%) accuracy across 5 probes. When the teaching materials were available (3 probes) Bridget scored 63.33% (range: 30%-80%) correct. Immediacy of effect was observed as a 30% increase in correct responding post intervention. After intervention, Bridget's average score increased to 90% (range: 50%-100%) correct when teaching materials were available and 80% when they were removed. Once stable responding was observed, Bridget was moved to maintenance, where her average dropped to 55% (range: 50%-60%) correct. Given this decline, Bridget received a booster session between session 37 and 38, and again before session 39. Bridget completed the generalization probe on session 39 and scored 70% accuracy.

#### **Kailie, Mitch, and Zeik**

**Kailie.** During baseline probes without teaching materials, Kailie responded with an average of 30% (range: 20%–40%) accuracy across 3 probes. When the teaching materials were available (1 probe), Kailie scored 30% correct. Immediacy of effect was observed as a 20% increase in correct responding post-intervention. Specifically, Kailie's average score increased to 53.33% (range: 40% -70%) across 3 probes. Despite this improvement, Kailie's performance remained low and so it was determined that Kailie required feedback sessions. Kailie's average performance during three feedback sessions was 86.67% (range: 80% –100%). Following feedback, Kailie's average score increased to 82.22% correct responding (range: 60% –100%) when teaching materials were available and 60% correct responding when teaching materials were removed. Despite this increase, Kailie's performance remained highly variable, and so an additional day of feedback was implemented between session 28 and 35. Kailie achieved 90%

accuracy on this feedback session but Kailie's performance did not increase and remained variable following the second feedback session (average score of 60% correct responding, range 40% - 80%). Due to numerous absences and the program's spring break, Kailie was not able to complete additional feedback sessions or post-intervention probes and maintenance and generalization were not assessed.

**Mitch.** During baseline probes without teaching materials, Mitch responded with an average of 53.3% (range: 40%–60%) accuracy across 3 probes. When the teaching materials were available (2 probes) Mitch scored 65% (range: 60%-70%) correct. Immediacy of effect was observed as a 10% increase in correct responding post intervention. After intervention, Mitch's average score increased to 73.33% (range: 70%-80%) across 3 probes with teaching materials present. Given this limited improvement, it was determined that Mitch required feedback sessions before completing additional probes. Mitch's average performance during four feedback sessions was 82.50% (range: 70%–100%). Following feedback, Mitch's average score increased to 90% (range: 70%–100%) accuracy when teaching materials were available and 80% when they were removed. Given Mitch's stable responding he was moved to maintenance despite one score of 70%. Mitch had started to voice dislike of completing probes so often (leading to concerns with motivation) and he scored 80% on the probe without teaching materials. Thus, it was determined that Mitch had demonstrated knowledge of the Accommodation Rights and that he should be moved to maintenance. Mitch was moved to maintenance following probe 21, in which his average maintenance score was 77.5% (range: 60 %-90%) correct. Because Mitch scored below 80% on a maintenance probe, a booster session was conducted between session 31 and 34. On session 38 Mitch completed the generalization probe and scored 60% correct.

**Zeik.** During baseline probes without teaching materials, Zeik responded with an average of 50% (range: 30%–70%) accuracy across 5 probes. When the teaching materials were available (3 probes) his average score was 43.33% (range: 40%-50%) correct. During intervention, Zeik displayed disruptive behaviors that impeded the learning of his other group members. Thus, Zeik was removed from the study and no further probes were conducted.

### **Generalization**

Mitch, Holden, Kathryn and Bridget completed the generalization assessment. Holden and Kathryn both scored 100% correct, Bridget scored 70% correct, and Mitch scored 60% correct. Kathryn and Holden were able to generalize the skills and could determine whether a violation or non-violation occurred in the context of their current internship placement. Given Mitch and Bridget's lower performance, it is unclear if they were able to generalize the skill. Further, when reviewing responses to the question "why" it was a violation or non-violation, Kathryn and Holden were able to provide accurate justification for their answers; they explained each part of the flowchart to describe how they arrived at their response. For example, Kathryn explained, "Yes violation; they disclosed disability, it did not cause undue hardship, and they did not change an essential job task." Holden explained, "Does not cause undue hardship, and they are not qualified for the job, you have to be qualified to do the job. No violation." Mitch, on the other hand, provided justification without detail; he simply repeated what the scenario depicted. For example, he said, "They should give it to him, they cannot see well and they asked for an accommodation." Similarly, Bridget was also unable to provide specific reasons for her answers. For example, she stated "They did everything right" but was not able to expand.

**Social Validity**

Participants rated the intervention as enjoyable; they indicated they liked participating and learning about their rights. See table 9 for average scores on each item per group and across all participants.



## **DISCUSSION**

The current study examined the effects of a video-based BST self-advocacy training to teach knowledge of rights for disability accommodation to young adults with IDD in a school-to-work transition program. Results indicate that 8 of 9 participants improved their knowledge of rights as evidence through their improved accuracy in determining whether scenarios depicted rights violations or non-violations. Additional supports, in the form of feedback and/or booster sessions, were required to enhance skill acquisition for 6 of the 9 participants. Following intervention, 3 of 6 participants displayed skill maintenance over time, and 2 of 4 participants demonstrated generalization to situations within their current internship placements. Visual analysis indicates moderate intervention effectiveness through a display of increased performance replicated across participants.

Participants required different levels of support to ensure skill acquisition; although some participants were able to demonstrate knowledge of rights immediately following intervention, others required additional training. Specifically, two participants did not require feedback sessions. Kathryn's initial baseline scores were the highest of all participants and her performance immediately following training indicated that she did not require additional feedback. It is possible that Kathryn had previous knowledge of Accommodation Laws and intervention provided clarification or additional knowledge that led to enhanced performance. Alternatively, Bridget's performance was highly variable during baseline and her first probe following intervention did not indicate any improvement. Several subsequent probes, however, demonstrated skill acquisition and no need for feedback sessions. Thus, Bridget's pattern of responding indicated that she did not have previous knowledge of Accommodation Laws and acquired these skills throughout the intervention. Further, although Bridget's performance post-

intervention did not indicate a need for feedback, her decreased accuracy during maintenance indicates that she might have benefited from feedback sessions.

Four participants, Kailie, Doug, Chris, and Mitch displayed increased accuracy on the post-intervention video assessment, but their performance was extremely variable. Feedback sessions were implemented to address this variability. Specifically, initially following intervention participants did not receive feedback related to their performance on the post-intervention video assessments. Thus, participants were unaware of their performance on the assessment and did not receive any error correction. It was determined that feedback (e.g., being told when a response was correct and receiving an error correction when a response was incorrect) could enhance performance. These four participants demonstrated an immediate increase in accuracy following feedback sessions. Similarly, two participants, Holden and Bethany, did not demonstrate any improvement following intervention but demonstrated immediate improvement following feedback sessions.

### **External Factors Related to Performance**

While the self-advocacy training and feedback sessions led to improved knowledge of rights, a few participants continued to display variable or decreased performance. Analysis of the participant's specific situations indicate that additional factors outside the purview of the intervention may have impacted performance. For example, Kailie struggled with environmental factors at home that led to significant absences from the program. Although she received all five days of intervention, she was absent the immediate two days following intervention (missing the initial post-intervention probes) and her attendance was sporadic post-intervention. These absences may have led to a lack of repeated of practice with the teaching materials and on the post-intervention assessment. Another possible explanation for Kailie's variable responding is

that there may have been days when she did not attend as closely to the video assessments because of fatigue and trauma from the events that were occurring at home.

Doug also displayed variable responding throughout post-intervention. It was observed that the days in which his performance dropped were often days when he displayed incompatible behaviors in the classroom and at the worksite (i.e. interrupting peers and instructors, noncompliance). It is possible that he was less likely to attend to the video assessment on these days. Notably, because of their varied performance, both Kailie and Doug were unable to complete post-test assessments or advance to maintenance or generalization.

During and post-intervention, Holden was going through changes with medications which led to extreme tiredness. He often fell asleep during the assessments, which may have affected focus and accurate responding during the video assessments. It was observed that his fatigue was more frequent in the morning; therefore, the decision was made to conduct post-intervention probes in the afternoon, which indicated slight improvement.

Finally, Bethany, required additional supports post-intervention, including both feedback sessions and one-on-one instruction. During the feedback sessions it was observed that Bethany required support with pausing the assessment videos, to allow for additional processing time. Following feedback, the researcher sat with Bethany to help her stop and start the video in order to allow for additional time to process the scenario and work with the flowchart but no corrective feedback was provided. This strategy seemed to help with performance.

### **The Importance of Feedback and Teaching Materials**

Although it is unclear overall why feedback was necessary for the majority of participants and why it was related to improved performance above and beyond the training, several hypotheses are offered. First, it is hypothesized that receiving positive and corrective

feedback served as an additional teaching technique to support skill acquisition. Second, it is possible that receiving attention and praise from the researcher while completing the video assessment may have reinforced on task behavior and led to more accurate performance. This hypothesis is similar to previous results from self-advocacy trainings that indicate some participants benefited from additional teaching sessions outside of intervention (Feldman et al., 2012; Sievert et al., 1998).

The utility of the permanent prompt (teaching materials) was also assessed within the current study, and congruent with past studies (Sievert et al., 1998). Prior to intervention, participants completed at least one assessment with access to the teaching materials but were observed to not use them. All participants either displayed significantly lower correct responding or highly variable responding when teaching materials were accessible during baseline. These data indicate that participants were unable to effectively use the materials prior to intervention, highlighting the need for further instruction on teaching Disability Rights and use of the teaching materials.

Post-intervention data supports the utility of the teaching materials for most participants. When participants completed the assessment without access to the materials post-intervention, all but one participant (Kailie) received accuracy scores above 70%. This indicates that students did acquire knowledge and were able to apply the knowledge without the assistance of the teaching materials, but also provides support that the materials may have served as an additional prompt for some students. This hypothesis is similar to previous results from self-advocacy trainings that utilized teaching materials as prompts for correct responding in intervention and post-testing measures (Feldman et al., 2012; Sievert et al., 1998). The current study further evaluated this by alternating the removal and access of the materials to analyze their effectiveness.

## **Social Validity**

Social validity scores reflect an average consensus of agreement that participants enjoyed the intervention. Analyzing individual scores, however, indicates that some participants were less favorable toward the intervention. For example, Doug, Kailie, and Holden indicated they did not feel as though they learned something from this intervention. Post-intervention scores, however, indicate that they did improve their knowledge of rights. Although Doug and Kailie exhibited high levels of variability, they still performed better post-intervention. Kailie, Kathryn, and Mitch indicated they did not enjoy the intervention. This may explain Kailie and Mitch's performance, as they both exhibited high rates of variability at times.

Finally, Kailie and Bridget both indicated they did not feel they received enough praise while completing the intervention and assessments. Both participants showed rates of high variability throughout the study, both in post-intervention and maintenance. It is possible that their performance could be related to lack of positive reinforcement. For example, as seen in the data pattern for Bridget, her responding was stable and then decreased dramatically. Additional praise for completing the assessments could have helped to maintain accuracy or increase stability over time. It is important to note that anecdotal accounts demonstrate that students expressed frustration over the need to continually complete the online assessment. These accounts do not align with responses on the social validity measure but could explain declines in performance over time.

## **Implications for Research and Practice**

The findings have important implications for future research and practice. Advocacy is essential to independent living and the transition from secondary to post-secondary or vocational settings for individuals with disabilities (Merchant & Gajar, 1997). Few programs have been

developed to help individuals with disabilities respond to barriers they may experience once employed. By learning to be a self-advocate, individuals with IDD are better equipped to direct their own lives and to decrease the amount of supports they need from others (Test et al., 2005). As such, further trainings should continue to focus on preparing individuals with IDD to advocate for their own rights (Balcazar et al., 1991; Test et al., 2005; White et al., 1997). Results from the current study indicate that before individuals with IDD can be effective self-advocates, they must first receive explicit instruction in their disability rights. Future practice should proactively develop trainings for schools to support the emergence of disability rights and self-advocacy education for students with disabilities (Test et al., 2005).

Future research should be conducted to replicate and evaluate these findings, and others that have examined teaching knowledge of rights with individuals with disabilities. As laws and regulations are constantly changing, reevaluation of teaching strategies and specific teaching materials is required. Additionally, the current study did not address if the participants were able to specifically speak out for their own accommodation rights in their employment settings. Future research should examine this important aspect of self-advocacy.

### **Limitations**

Despite the positive findings, there are a few limitations that should be considered. First, it is unclear as to which components of the study aided in the success of the participants. While some participants benefited from the addition of feedback sessions, others did not require feedback and others continued to display variable performance. Future research should conduct a component analysis to examine how specific aspects of the intervention impacted skill acquisition. Second, it is not clear if students fully understood the items on the social validity measures as responses to the items were not consistent with the behavior displayed during the

video assessments. Still, social validity and anecdotal accounts indicated that participants did not greatly enjoy the intervention, were bored, and they felt they did not receive enough praise.

Future research should focus on improving the intervention and assessments to be more novel and exciting, such as providing more variability in the videos or conducting the assessments less often. Additionally, future research should incorporate additional feedback (contingent and non-contingent) and praise.

Third, because the students were not yet in paid employment, they might not have fully understood or appreciated the importance of learning the Accommodation Laws. Future research should be conducted with participants already in paid employment to examine if there is differential responding. Fourth, generalization probes provide evidence of the transfer of skills to identify rights violations in relation to other settings. Although participants were able to transfer the skill, two were not able to explain ‘why’ a violation had occurred. Thus, an important next step will be to teach individuals with IDD how to explicitly state the laws and how they are violated. This next step is vital for them to be able to advocate for change if a violation occurs in their own employment setting.

Finally, only 1-2 hours of time per day was available for intervention; this time was shared with classroom instruction by the special education teacher and was not always consistent. As a result, not all participants were able to successfully complete all stages of the study. Further, because of days off and spring break, it was not possible to obtain maintenance or generalization data from several participants. Future research may benefit from taking place in a more consistent setting.

## **Conclusion**

This study is one of the first to develop and evaluate a training procedure for teaching individuals with IDD how to identify violations and non-violations of disability rights for accommodations at work under the ADAA. Since the publication of Sievert et al. (1998), laws and regulations have progressed for individuals with disabilities and the current study was conducted to provide procedures to teach the updated regulations. Results of the current study were similar to those of previous research (Feldman et al., 2012; Sievert et al., 1998).

In conclusion, self-advocacy skills and knowledge of rights can help ensure a smooth transition from high school to post-secondary education and/or competitive employment (Merchant & Gajar, 1997). Individuals with disabilities cannot advocate for their rights, or have the opportunity to do so, if they are unaware of what these rights are or how to speak out for them. Teaching individuals with IDD about self-advocacy and their rights within the context in which these skills may be needed (e.g. vocational settings) will better support their success.



## APPENDIX

Table 1.

*Job Accommodation Law Definitions with Violation and Non-Violation Examples*

<b>Accommodations</b>	<b>Definition</b>	<b>Non-Violation</b>	<b>Violation</b>
<b>Job Restructuring</b>	Changing or modifying job incidental tasks and responsibilities that an employee may not be able to perform due to a disability. An employer, however, never has to restructure essential job tasks as a Reasonable Accommodation but can do so if wishes. All absent undue hardship.	An employee, who has Down Syndrome, has arthritis and is therefore unable to maneuver up and down stairs very easily. His essential tasks are cleaning halls of the office building, and part of his job is cleaning the stairs as well (non-essential). The employer restructures the job tasks so that the individual is still completing his main responsibilities, but switches cleaning stairs with another employee's work to accommodate for the worker.	An employee, who has Down Syndrome, has arthritis and is therefore unable to maneuver up and down stairs very easily. His essential tasks are cleaning halls of the office building, and part of his job is cleaning the stairs as well (non-essential). The employee asks for an Accommodation so that he is able to complete all of his essential job responsibilities and then some, without having to clean the stairs. The employer refuses to accommodate for the individual and will let go the employee if he is not able to complete the tasks.

Table 1 (cont'd)

<b>Leave</b>	Authorizing paid and unpaid leave to an individual with a disability, as needed due to his/her disability. Employers, however, do not have to provide paid time off beyond that is given to any other employee within the company: Paid time off is accumulated first and then un-paid leave shall be given. All absent undue hardship.	An employee asks for paid time off due to needing heart surgery, that has occurred as part of the individual's disability. The employer allows 5 paid days off, to employees in the company, and the employee is asking for 15. The employer allocated the 5 days paid and then gives the employee an additional 10 days un-paid time off.	An employee asks for paid time off due to needing heart surgery, that has occurred as part of the individual's disability. The employer allows 5 paid days off and the employee is asking for 15. The employer accommodates and lets the employee have the 15 days off, except they are all un-paid.
<b>Modified or Part-Time Schedule</b>	Employers must grant modified work schedules, or give part-time schedules, to individuals with disabilities that acquire it: all absent of undue hardship.	An employee, due to her disability needs to take medication every three hours. After she takes her medication, due to side effects, she needs about 45 min. to not feel nauseous. She is asking her employer for 3 45 min. breaks throughout the work day to accommodate to this.	An employee, due to her disability needs to take medication every three hours. After she takes her medication, due to side effects, she needs about 45 min. to not feel nauseous. She is asking her employer for 3 45 min. breaks throughout the work day to accommodate to this. The employer does not grant this Accommodation because they feel that it would be not be fair to the other employees of the company.

Table 1 (cont'd)

<b>Modified Workplace Policies</b>	An employer is required to modify a workplace policy to accommodate an individual with a disability who needs it: all absent undue hardship.	An employee requires that they eat a small snack every hour, due to having diabetes. The employer's policy is that no food and drink is allotted on the job. The employee is asking for an Accommodation to keep a small snack at their desk, and is granted the accommodation.	An employee requires that they eat a small snack every hour, due to having diabetes. The employer's policy is that no food and drink is allotted on the job. The employee is asking for an Accommodation to keep a small snack at their desk, and is denied the request.
<b>Reassignment</b>	It is required that an employer reassign an employee that can no longer complete their essential job functions of their current position, due to their disability, to a vacant position in the company, with tasks they would be able to complete. However, the employee must be qualified for this new position to be reassigned to it. The employee does not need to be the best candidate for the position, but the employer has no obligation in needing to provide training for the new position either. All absent of undue hardship.	An employee is asking for reassignment to a vacant office position, for their current factory position, due to their disability and needing to not be of their feet. The employee does not have the required prerequisites to be eligible for this job position and it not granted the accommodation	An employee is asking for reassignment to a vacant office position, for their current factory position, due to their disability and needing to not be of their feet. The job requires less skills as their current position, therefore, they are eligible for the reassignment. The employer denies the Accommodation and fires the worker instead, for not being able to complete their job functions in their current position.

Table 2.

*Job Accommodation Law Definitions and Violation and Non-Violation Examples for Generalization Probes*

<b>Accommodation</b>	<b>Non-Violation</b>	<b>Violation</b>
Job Restructuring	You have disclosed your disability and are asking for an accommodation for the employer to purchase a device that makes scooping ice cream easier for you. The employer denies the accommodation due to the fact that the device would cost 1,000 dollars.	You have disclosed your disability and are asking for an accommodation for the employer to provide an assistive device to help making ice cream scooping easier. The device is of reasonable cost. The employer denies the request due to the fact that it would make ice scooping less efficient.
Leave	You are asking for a paid time leave due to needing to go to physical therapy. The employer denies the request because they were not aware of the employee's disability ahead of time.	You are asking for a paid time leave due to needing to go to physical therapy, due to your disability that you have discussed prior to your employer. The max time leave is 3 days and you are asking for time off for 5. The employer accepts the request, however does not give any paid time off and only allows non-paid time off
Modified or Part-Time Schedule	You have disclosed your disability and are asking for an accommodation to have frequent breaks to sit down from cleaning the dorm rooms, due to ankle problems associated with your disability. The employer accepts the accommodation request.	You have disclosed our disability and are asking for an accommodation to have frequent break to sit down from cleaning the dorm rooms, due to ankle problems associated with your disability. The employer denies the request for the accommodation because it wouldn't be fair for your other co-workers.
Modified Workplace Policies	It is a policy that an employee notifies a leave of absence for any reason at least a month in advance. You have disclosed your disability and are needing to ask for time off and can only provide it with one week's notice. No undue hardship is accumulated due to this and the accommodation is made.	It is a policy that an employee notifies a leave of absence for any reason at least a month in advance. You have disclosed your disability and are needing to ask for time off and can only provide it with one week's notice. The employer fires you due to not notifying him within one month's time and says that he cannot bend the rules for anyone.

Table 2 (cont'd)

Reassignment	<p>You are working at the vet med building and an office position is opening up for a data entry job. You have been working on your feet cleaning kennels and due to your disability, that you have disclosed, you are asking for reassignment because you are no longer able to work on your feet for long periods of time. The request is denied because you do not have the required schooling for the open position.</p>	<p>You are working at the vet med building and a position for cleaning kennels is opening. You have been working as a data entry analyst and due to your disability, that you have disclosed, you are asking for reassignment because you are no longer sit for long periods of time and need to be consistently moving. The request is denied because they want to hire someone else for the job position.</p>
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Table 3.

*PowerPoint Outline for Video-Based BST Intervention*

<b>The definition ADA and reasonable accommodations</b>	Americans with Disabilities Act (ADA) is civil rights law that was put into place in 1990. This law prohibits the discrimination of people with disabilities in all areas of life, including but not limited to vocational work. Within the ADA, the law described reasonable accommodations (or modifications) that an employer must provide for people with a disability if they need one.
<b>Three steps in determining if a right has been violated</b>	Talk about disclosure, undue hardship, and the definition and regulations under that specific right of accommodation.
<b>1<sup>st</sup> Right under Reasonable Accommodations – Job Restructuring</b>	Changing or modifying job incidental tasks and responsibilities that an employee may not be able to perform due to a disability. An employer, however, never has to restructure essential job tasks as a reasonable accommodation but can do so if wishes. All absent undue hardship.
<b>Behavior rehearsal</b>	<ol style="list-style-type: none"> <li>1. Watch a video vignette that either depicts a non-violation or a violation. Researcher modeled using the flowchart how to determine if a right was violated or not.</li> <li>2. Participants then observed a second video vignette that either depict a non-violation or a violation</li> </ol>

*Note.* BST = behavior skills training; ADA = Americans with Disabilities Act

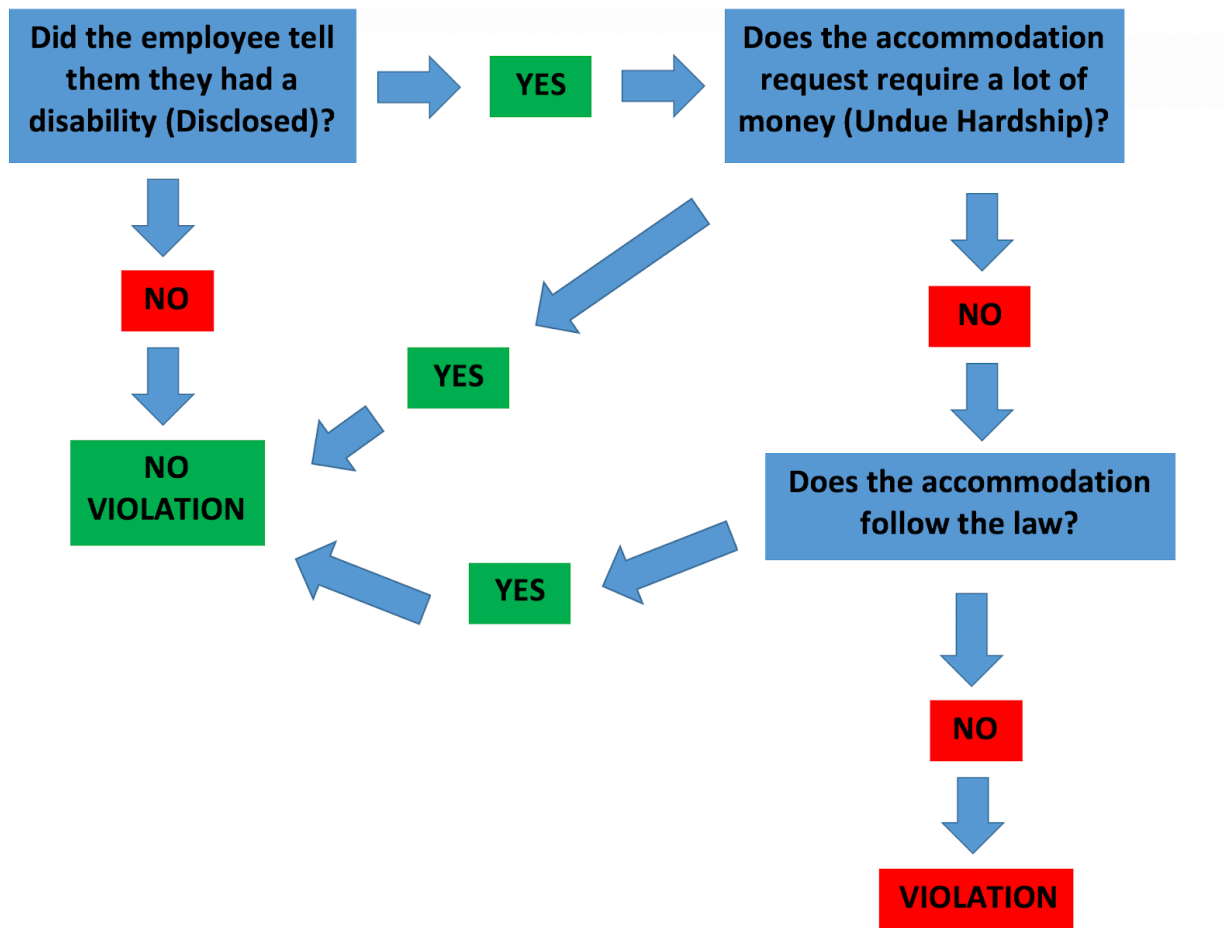
Table 4.

*Average Scores on the Measure of Social Validity Across and Within Groups with 1 Indicating Strongly Agree and 4 Indicating Strongly Disagree*

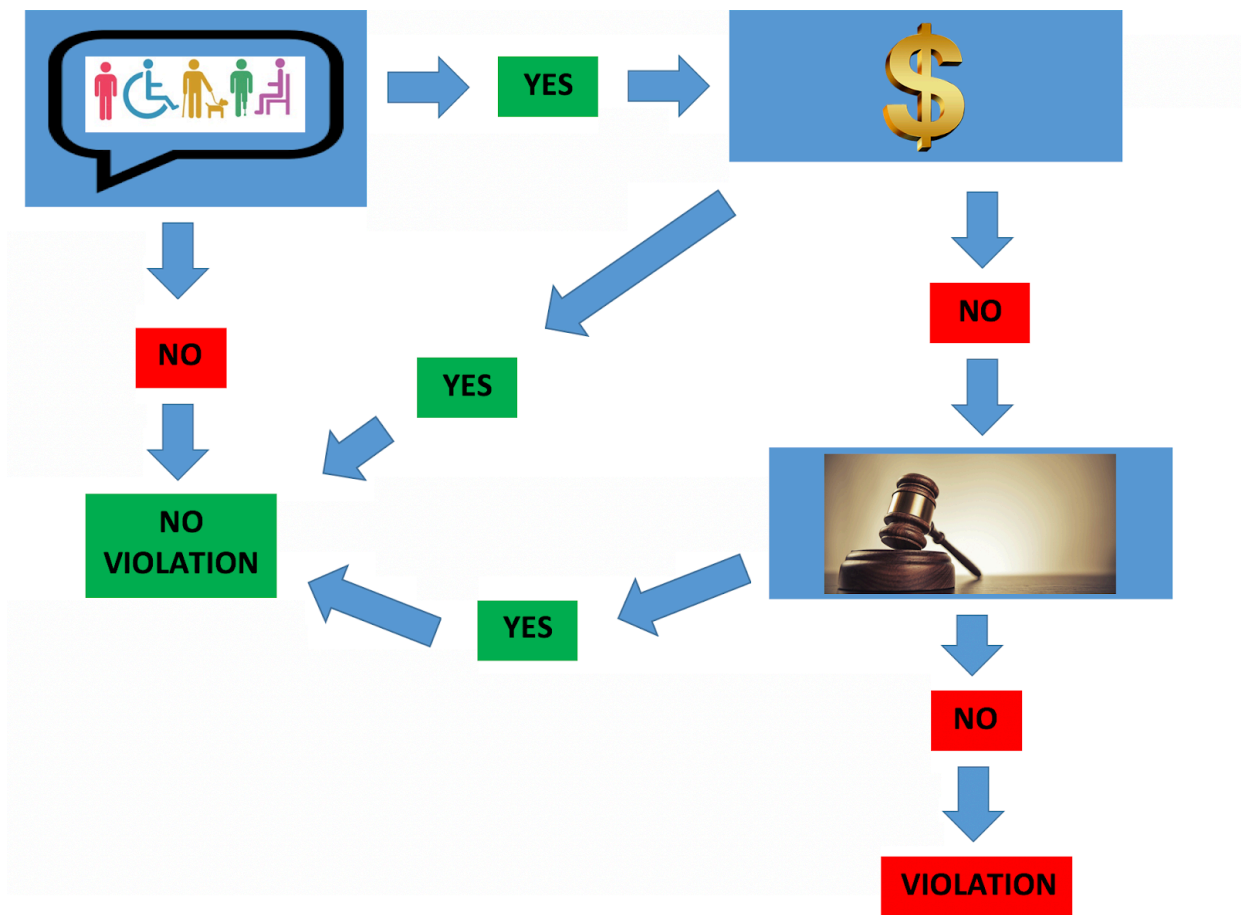
Item	Group 1	Group 2	Group 3	Overall
Question 1: I enjoyed the intervention	1.33	1.67	1.00	1.33
Question 2: I learned something new after the intervention	1.67	1.33	1.00	1.33
Question 3: I think I did better on the computer assessment after the week of teaching.	1.00	1.00	1.00	1.00
Question 4: I think the feedback session (if I got feedback) was helpful in helping me learn the material better	1.33	1.00	1.00	1.11
Question 5: I found the flowchart helpful	1.00	1.00	1.00	1.00
Question 6: I found the cheat sheet helpful	2.00	1.33	1.00	1.44
Question 7: I received enough praise for completing the intervention	1.33	1.00	1.00	1.11
Question 8: I received enough praise from completing the online assessment	1.33	1.00	1.50	1.28
Question 9: I think I was able to learn how to discriminate against violations under the ADA for accommodations	1.33	1.00	1.00	1.11

Note. Group 1 = Kailie, Chris, Doug; Group 2 = Mitch, Holden, Kathryn; Group 3 = Bridget, Bethany.





*Figure 1. Flowchart for determining a rights violation or non-violation for readers.* The flowchart created to assist participants in determining whether an employer violated the rights of an employee with a disability. The three steps in determining a violation vs. a non-violation are in blue (Disclosing disability, Undue hardship, and the specific law requirements). This flowchart was created for participants who could read.



*Figure 2. Flowchart for determining a rights violation or non-violation for non-readers.* The flowchart created to assist participants in determining whether an employer violated the rights of an employee with a disability. The three steps in determining a violation vs. a non-violation are in blue (Disclosing disability, Undue hardship, and the specific law requirements). This flowchart was created for participants who could not/had trouble reading.

## Accommodations Cheat Sheet

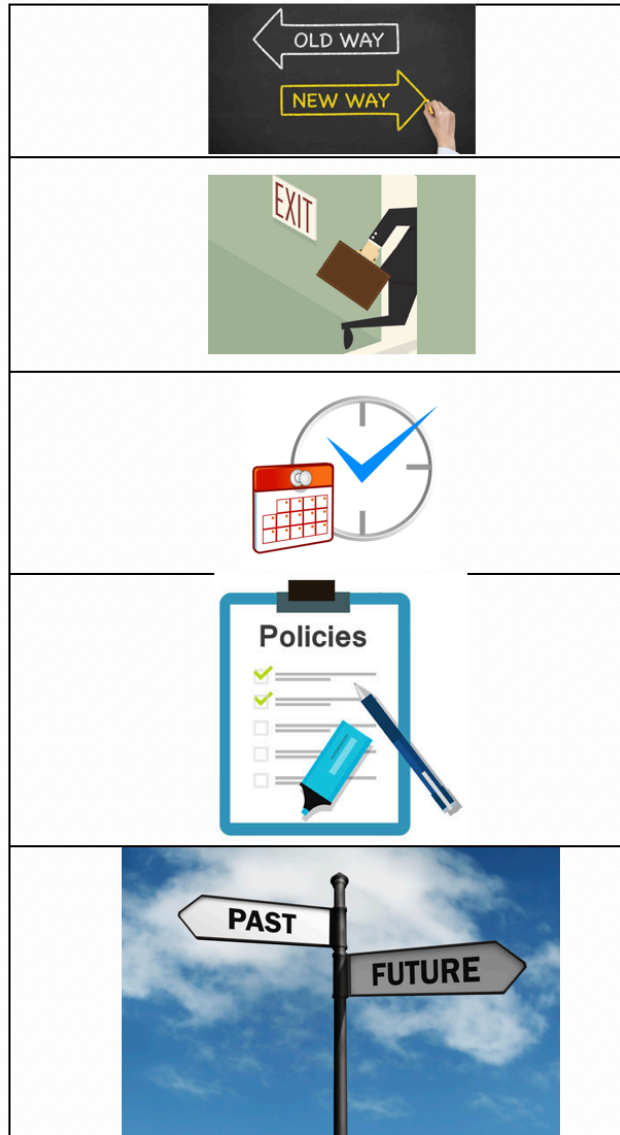
The Americans with Disabilities Act requires employers to provide reasonable accommodations to individuals with a disability who are employees or applicants for employment.

<b>Job Restructuring</b>	<ul style="list-style-type: none"> <li>○ Changing job tasks</li> <li>○ Employer <b>do not have</b> to change a job task that is considered essential</li> </ul>
<b>Leave</b>	<ul style="list-style-type: none"> <li>○ Granting paid/un-paid time off</li> <li>○ Employers <b>do not have</b> to give paid time off past what is granted to any other employee</li> </ul>
<b>Modified or Part-Time Schedule</b>	<ul style="list-style-type: none"> <li>○ Changing of work schedules (e.g. arrival time, or additional breaks) for an individual with a disability</li> </ul>
<b>Modified Workplace Policies</b>	<ul style="list-style-type: none"> <li>○ Change in work rules and policies to accommodate an individual with a disability</li> </ul>
<b>Reassignment</b>	<ul style="list-style-type: none"> <li>○ Moving an individual to a new position in the company</li> <li>○ Employee must be qualified for the position, and position must be open</li> <li>○ Employer <b>does not have</b> to provide additional training</li> </ul>

*Figure 3. Cheat sheet of the five Accommodation Rights related to job performance under the ADAAA for readers.* The cheat sheet was created to help participants remember the definition of each Accommodation Law, bulleting the most specific points within each law. Participants used this sheet to help answer the final question in the flowchart, “Does the accommodation follow the law?” This sheet was created for participants who could read.

## Accommodations Cheat Sheet

The Americans with Disabilities Act requires employers to provide reasonable accommodations to individuals with a disability who are employees or applicants for employment.



*Figure 4. Cheat sheet of the Five Accommodations Rights related to job performance under the ADAAA for non-readers.* The cheat sheet was created to help participants remember the definition of each Accommodation Law, bulleting the most specific points within each law. Participants used this sheet to help answer the final question in the flowchart, “Does the accommodation follow the law?” This sheet was created for participants who could not/have trouble reading.



### Fidelity Data Sheet

Instructor Name (Facilitator):

Observed By:

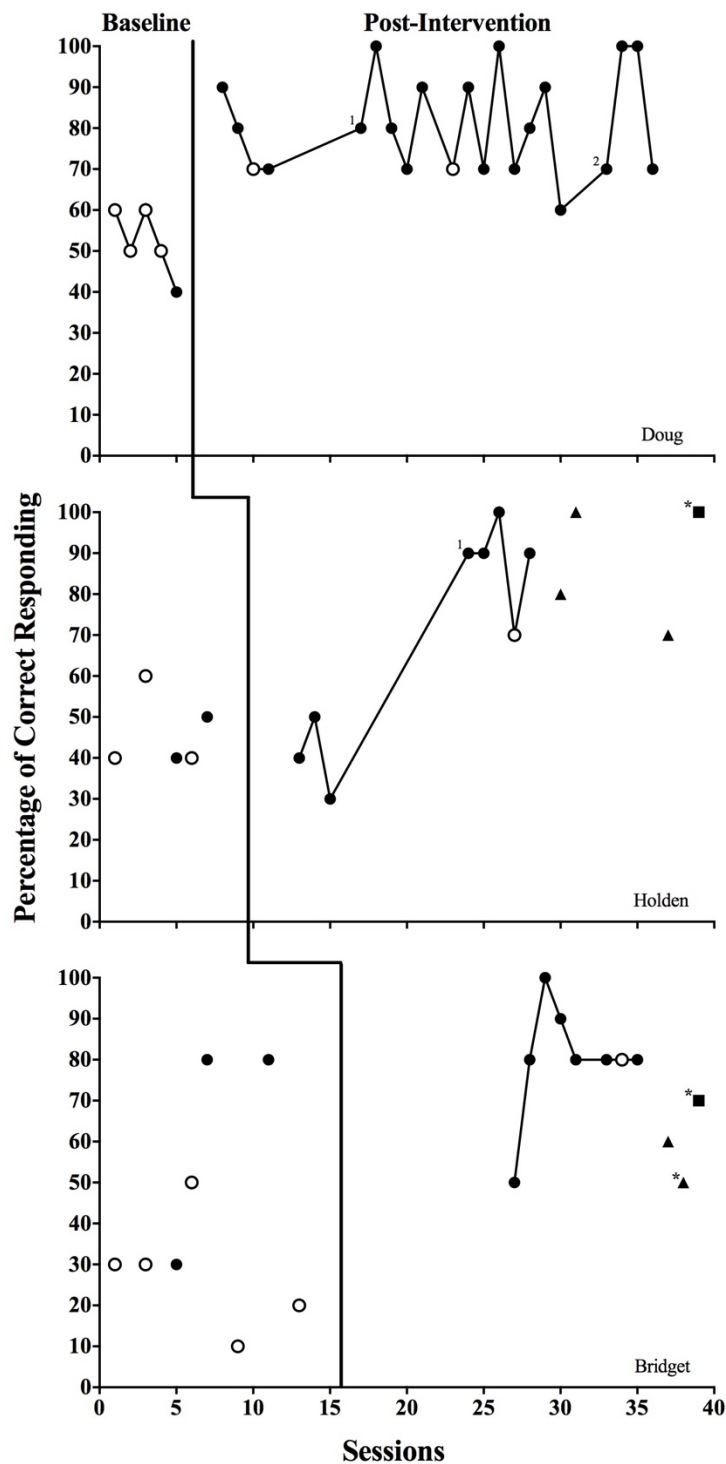
Date:

Overall Score:

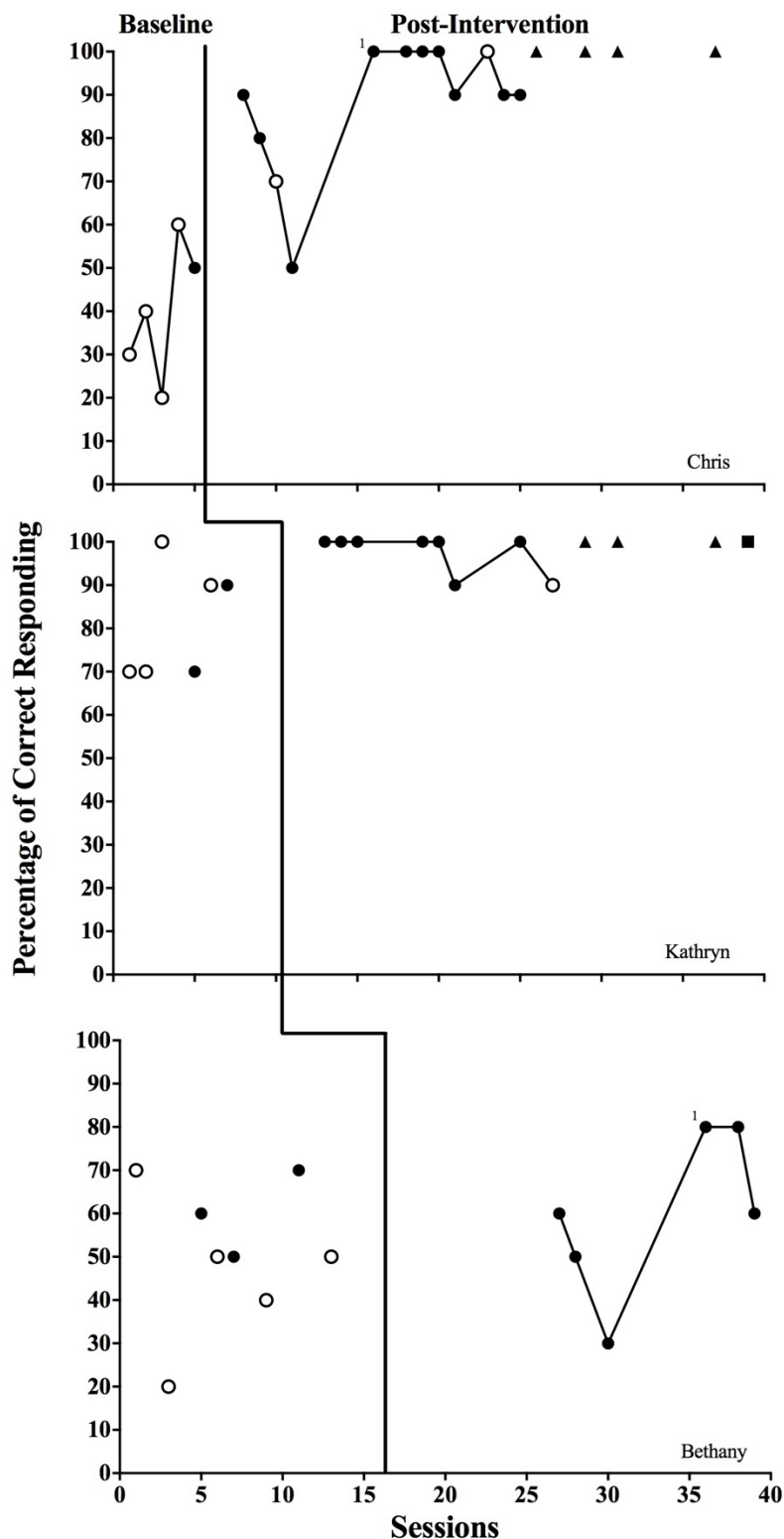
		Yes	No	N/A
1	Instructor will ensure the students have their computers, packets, and will obtain attending			
2	Instructor will position themselves in front of the students for proper instruction			
3	Instructor will explain reinforcement points			
4	Instructor will explain why students are there that day and what the week looks like			
5	Instructor will review material from previous day			
6	Instructor will go through the powerpoint slides, talking through each, and asking questions to the students			
7	Instructor will give out points to correct responding and participating			
8	Instructor will teach the students how to use the flow chart and cheat sheet			
9	Instructor will conduct a role play with each student			
10	Instructor will conduct an individualized test (one video) with the students and then provide specific feedback to each student and the group			
11	Instructor will conclude the training session by reviewing what was learned			

**Total** \_\_\_\_/\_\_\_\_ = \_\_\_\_%

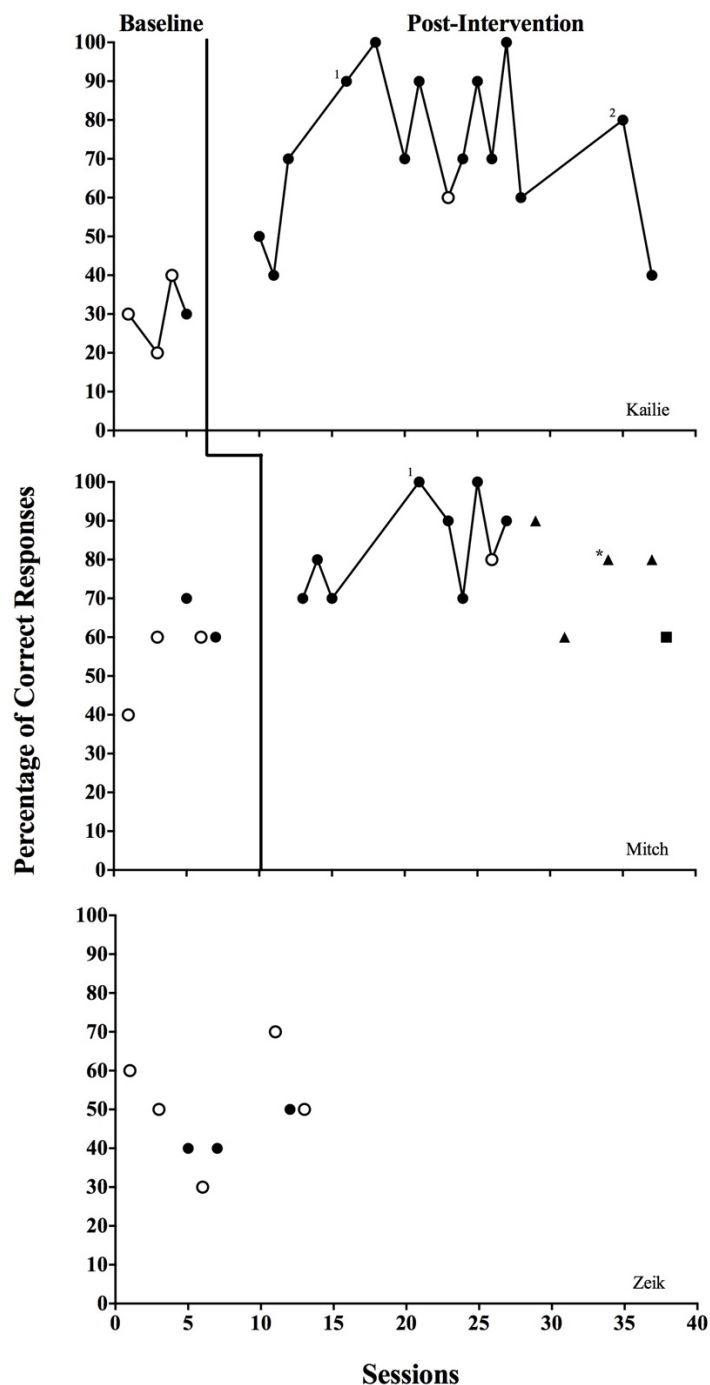
*Figure 5. Procedural integrity data sheet. Procedural integrity (PI) checklist created to take fidelity data on the researcher implementing the intervention to all participants. PI data was collected for at least 30% of all intervention sessions by an outside researcher observing.*



*Figure 6. Results for Doug, Holden, and Bridget.* 1 depicts the probes following feedback sessions; 2 depicts the probe following a brief feedback session; \* depicts the probe following a booster session. Open symbols depict probes conducted without teaching materials. Closed symbols depict probes conducted with teaching materials. Triangles depict maintenance probes. Squares depict generalization probes.



*Figure 7. Results for Chris, Kathryn, and Bethany.* 1 depicts the probes following feedback sessions. Open symbols depict probes conducted without teaching materials. Closed symbols depict probes conducted with teaching materials. Triangles depict maintenance probes. Squares depict generalization probes.



*Figure 8. Results for Kailie, Mitch, and Zeik.* 1 depicts the probes following feedback sessions; 2 depicts the probe following a brief feedback session; \* depicts the probe following a booster session. Open symbols depict probes conducted without teaching materials. Closed symbols depict probes conducted with teaching materials. Triangles depict maintenance probes. Squares depict generalization probes.



## REFERENCES

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- Barnes, C. S., Dunning, J. L., & Rehfedlt, R. A. (2011). An evaluation of strategies for training staff to implement the picture exchange communication system. *Research in Autism Spectrum Disorders, 5*, 1574-1583. doi: 10.1015/jrsad.2011.03.003
- Balcazar, F. E., Fawcett, S. B., & Seekins, T. (1991). Teaching people with disabilities to recruit help to attain personal goals. *Rehabilitation Psychology, 36*, 31-42.
- Beck, K. V., & Miltenberger, R. G. (2009). Evaluation of a commercially available program and in situ training by parents to teach abduction-prevention skills to children, *Journal of Applied Behavior Analysis, 42*(4), 761–772. doi:10.1901/jaba.2009.42-761.
- Bergstrom, R., Najdowski, A. C., Alvarado, M., & Tarbox, J. (2016). Teaching children with autism to tell socially appropriate lies. *Journal of Applied Behavioral Analysis, 49*(2), 405-410. doi: 10.1002/jaba.2016.49(2)-405
- Bornstein, M. R., Bellack, A. S., & Hersen, M. (1977). Social-skills training for unassertive children: a multiple-baseline analysis. *Journal of Applied Behavior Analysis, 10*(2), 183-195.
- Boyer, E., Miltenberger, R. G., Batsche, C., & Fogel, V. (2009) Video modeling by experts with video feedback to enhance gymnastics skills. *Journal of Applied Behavior Analysis, 42*(4), 855-860. doi: 10.1901/jaba.2009.42-885
- Charlop, M. H. & Milstein, J. P. (1989). Teaching autistic children conversational speech using video modeling. *Journal of Applied Behavior Analysis, 22*(3), 275-285
- Durlak, C. M., Rose, E., & Bursuck, W. D. (1994). Preparing high school students with learning disabilities for transition to postsecondary education: teaching the skills of self-determination. *Journal of Learning Disabilities, 27*, 51-59.
- Feldman, M. A., Owen, F., Andrews, A., Hamelin, J., Barber, R., & Griffiths, D. (2012). Health self-advocacy training for persons with intellectual disabilities. *Journal of Intellectual Disability Research, 56*, 1110-1121.
- Gathridge, B. J., Miltenberger, R. G., Huenke, D. F., Satterlund, M. L., Mattern, A. R., Johnson, B. M., & Flessner, C. A., (2004). Comparison of two programs to teach firearm injury prevention skills to 6-and 7-year-old children. *Pediatrics. 114*, 294-299. doi: 10.1542/peds.2003-0635-L
- Gianoumis, S., Seiverling, L., & Sturmey, P. (2012). The effects of behavior skills training on correct teacher implementation of natural language paradigm teaching skills and child behavior. *Behavioral Interventions, 27*, 57-74. doi: 10.1002/bin.1334

- Graudins, M. M., Rehfeldt, R. A., DeMattei R., Baker, J., & Scaglia, F. (2012). Exploring the efficacy of behavior skills training to teach oral care providers to administer oral care procedures to children with autism. *Research in Autism Spectrum Disorder*, 6(3), 978-987.
- Hammer, M. R. (2001) Using the self-advocacy strategy to increase student participation in IEP conferences. *Intervention in School and Clinic*, 39, 295-300.
- Hidegh, A. L., & Csillag, S. (2013). Toward the “mental accessibility”: Changing the mental obstacles that future Human Resource Management practitioners have about the employment of people with disabilities. *Human Resource Development International*, 16, 22-39.
- Kelley, H., & Miltenberger, G. (2016). Using video feedback to improve horseback-riding skills. *Journal of Applied Behavior Analysis*, 49, 138-147. doi:10.1002/jaba.2016.49-138
- Kulkani, M. (2012a). Contextual factors and help seeking behaviors of people with disabilities. *Human Resource Development Review*, 11, 77-96.
- Kulkarni, M., & Lengnick-Hall, M. L. (2014). Obstacles to success in the workplace for people with disabilities: a review and research agenda. *Human Resource Development Review*, 13, 158-180.
- Lester, S. (1998). Claiming disability. New York: NY University Press
- Mason, C., Field, S., & Sawilowsky, S. (2004) Implementation of self-determination activities and student participation in IEPs. *Exceptional Children*, 70, 441-451
- Merchant, D. J., & Gajar, A. (1997) A review of the literature on self-advocacy components in transition programs for students with learning disabilities. *Journal of Vocational Rehabilitation*, 8, 223-231.
- Owen, F., Griffiths, D., Stoner, K., Gosse, L., Watson, S. L., Tardif, C. Y., Sales, C., & Vyrostopko, B. (2003). Multi-level human rights training in an association for community living: first steps towards systematic change. *Journal of Developmental Disabilities*, 10, 43-64
- Procknow, G., & Rocco, T. S. (2016). The unheard, unseen, and often forgotten: an examination of disability in the human resource development literature. *Human Resource Development Review*, 15, 379-403. doi: 10.1177/1534484316671194
- Rosales R., Stone, K., & Rehfeldt, R. A. (2009). The effects of behavioral skills training on implementation of the picture exchange communication system. *Journal of Applied Behavior Analysis*, 42(3), 541-549.
- Rose, E., Friend, M., & Farnum, M. (1988). Transition planning for mildly handicapped students: The secondary school counselor's role. *The School Counselor*, 35, 275-283.

- Rumrill, Jr., P. D. (1999). Effects of a social competence training program on accommodation request activity, situational self-advocacy, and Americans with disabilities act knowledge among employed people with visual impairments and blindness. *Journal of Vocational Rehabilitation, 12*, 25-31.
- Sarokoff, R. A. & Sturmey, P. (2004). The effects of behavioral skills training on staff implementation of discrete-trial teaching. *Journal of Applied Behavior Analysis, 37*(4), 535-538.
- Sievert, A.L., Cuvo, A.J., & Davis, P. K. (1988). Training self-advocacy skills to adults with mild handicaps. *Journal of Applied Behavior Analysis, 21*, 299-30.
- Sobsey, D. (1994). *Violence and abuse in the lives of people with disabilities: the end of silent acceptance?* Baltimore, MD: Paul H. Brookes Publishing Co.
- Test, D. W., Fowler, C. H., Wood, W. M., Brewer, D. M., & Eddy, S. (2005). A conceptual framework of self-advocacy for students with disabilities. *Remedial and Special Education, 26*, 43-54.
- The United States Department of Justice Civil Rights Division, Americans with Disabilities Act As Amended (1990). Title I, Section 12111. Retrieved from <https://www.ada.gov/pubs/adastatute08.htm>
- The United States Department of Justice Civil Rights Division, Americans with Disabilities Act As Amended (1990). Title I, Section 12112. Retrieved from <https://www.ada.gov/pubs/adastatute08.htm>
- The United States Department Labor, Bureau of Labor Statistics (2016). Retrieved from <https://www.bls.gov/opub/ted/2016/17-point-5-percent-of-people-with-a-disability-employed-in-2015.htm>
- United States Equal Employment Opportunity Commission (2016). Retrieved from <https://www.eeoc.gov>
- White, G. W., Thomson, R. J., & Navy, D. E. (1997). An empirical analysis of the effects of self-administered advocacy letter training program. *Rehabilitation Counseling Bulletin, 41*, 74-87.