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Chapter 7: Learners with Disabilities and Video-Based Instructional Message Design

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Instructional Message Design:
Theory, Research, and Practice

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Key Points:

- Individuals with disabilities have education and community access rights and benefit from individualized instruction and supports.
- Individuals with low incidence disabilities often display life-long learning needs, and experience lower employment rates.
- Video-based instruction supports individuals with disabilities and promotes access to workplace and independence.
- All students with disabilities can develop skills and pursue positive outcomes, and benefit from individualized instruction and support.

Abstract

Learners with disabilities are entitled to public education that supports their unique needs, but unfortunately, they experience poor post-secondary outcomes when compared to their peers, including lower rates of post-secondary education engagement and employment. Individuals with low incidence disabilities experience lower employment rates when compared to other individuals with disabilities, due to the impact of difficulties with social/communication, self-determination, and executive functioning skills. Researchers have developed video-based instruction with various message design and technology features to support independence for individuals with disabilities, including basic to

complex vocational task completion. This chapter will provide useful information for designers, educators, state and private service providers, and families of individuals with disabilities.

Introduction

Students with disabilities represent a diverse and dynamic population that display various learning strengths, needs, and outcomes. In public school programs, students with disabilities that participate in the general education curriculum may have high incidence disabilities. High incidence disabilities occur more often, and may include students with specific learning disabilities (weaknesses in academic skills), emotional disabilities, other health impairment (i.e. attention deficits), or mild intellectual disability (lack of some daily living skills). While students with low incidence disabilities may have moderate to severe intellectual disabilities and/or developmental disabilities (i.e. Autism, physical disabilities). Students with low incidence disabilities may participate in adapted education curriculum programs in public schools.

Individuals with disabilities greatly benefit from federal laws which will be discussed in this chapter. These laws are the culmination of decades of advocacy and continue to reaffirm the rights and needs of this unique population. To help the reader build further background knowledge, this chapter will also discuss an overview of the prevalence, characteristics, and outcomes associated with individuals with disabilities. Finally, this chapter will review research about video-based instructional message design for academic and vocational skills, which represents a promising evidenced based approach to supporting the needs of individuals with disabilities. The reader should note that all students with disabilities can develop skills and experience positive individualized outcomes. As such, studies focused on K-12 (elementary school including kindergarten, middle school, and high school) students may also have relevant application for young adults preparing to enter the work force.

Overview of Disability Education and Accessibility Laws

Historically, individuals with disabilities have been underserved or denied access to education and appropriate learning supports and opportunities. With significant advocacy from families and stakeholders, the federal government enacted the Individuals with Disability Education Act (IDEA), which became law in 1975. Originally called the Education for All Handicapped Children Act, IDEA mandates a free and appropriate public education for students with disabilities. Students with disabilities must be educated in the least restrictive environment, including being placed in neighborhood schools with general education peers (Murdick, Gartin, & Crabtree, 2007). Public school systems may not reject any student with a disability and must provide due process when developing and implementing individualized education plans (IEPs) (Heward, 2009; Miller, 2009).

Public K-12 schools are required to identify students with disabilities, which occurs through comprehensive evaluation and school based eligibility committees. When a student is found eligible for special education services, the IEP team develops and proposes an individualized education plan (IEP). IEP teams usually include the student's parents, special education teacher, general education teacher, principal designee, related service providers (i.e. speech teacher, occupational therapist, and physical therapist), and others as needed (i.e. procedural support liaisons, parent provided advocates/lawyers, or school system special program representatives). This plan should define the student's learning strengths, needs, goals, and special education services. An IEP should support the students' access to the general education or adapted curriculum, as appropriate. IDEA also requires public schools and agencies to provide early intervention and preschool services to students with disabilities, aged 3 - 5 years old. Preschool age students with disabilities are often identified by county level child find programs, and are provided with an individualized family service plan (IFSP). This plan supports the child and family's access to therapy and education services (Heward, 2009). With further IDEA reauthorizations, the law has expanded and emphasized the use of evidence-based practices, technology use, and transition instruction and coordination for students with disabilities. Furthermore, students with disabilities are required to receive related

services, including counseling, occupational, physical therapy, speech/language, and/or specialized transportation (Heward, 2009).

Importantly, IDEA grants rights to students with disabilities aged, 5-22 years old. The age references school-aged children K-12, or 5-22 years old. Students with disabilities may stay in public school until they earn a standard diploma and/or when they are 22 years old. In 1986, the law was expanded to include mandatory special education and pre-K services (services available before the start of kindergarten) for students with disabilities, aged 3-5 years old. However, school teams may designate pre-K services to be completed in/out of school settings. Transition services are to include a results-oriented approach that is focused on achievement and a successful transition to post-secondary education (education after high school) and support services. These services must be individualized and should include coordination and related services, and community experiences during secondary education and transition-aged school programs. Students with disabilities at least aged 16 years old must have a transition plan, which should include individualized post-secondary goals and short-term objectives that are based on student interests and abilities, family and school input, and appropriate transition assessments (Heward, 2009).

It is important to note that IDEA requires appropriate education services to be provided to students with disabilities (aged 5 - 22 years old), however after graduating from high school students with disabilities no longer have a right to special education services. Career, education, training, and care services are available through state and local agencies, however an adult with a disability must display a significant barrier to employment and/or significant difficulties across several life skill areas to obtain services (Heward, 2009; Westling & Fox, 2009).

Individuals with disabilities are also entitled to the rights provided by the Americans with Disabilities Act (ADA). The ADA was enacted to comprehensively end discrimination against individuals with disabilities across community services, employment providers, and education and recreation opportunities. The ADA requires access to reasonable accommodations to promote fair and equal access to public and work settings for individuals with disabilities. Importantly, ADA law prohibits disability discrimination with all private entities and state governments, which may be enforced by federal processes (Murdick et al., 2007). To qualify for the

benefits of ADA, an individual must have a record of a mental and/or physical impairment that significantly impacts important life activities and skills (Heward, 2009).

Overview of Learners with Disabilities

Students with disabilities display diverse academic and psychological skill abilities (Heward, 2009; Miller, 2009). During the 2017-18 U.S. public school year, this unique population represented approximately 14% of all school-age students. Of the population of students that receive special education services, 34% have a learning disability. The remaining population of students with disabilities qualify for special education services for various disability categories. These categories include: speech language Impairments, up to 19%; other health impairment, up to 14%; Autism, up to 10%; intellectual disability, up to 6%; emotional disability, up to 5%; multiple disabilities, up to 2%; hearing or orthopedic impairment, up to 1% (National Center for Education Statistics, 2019). A significant population of our learners have some form of a disability, and our instructional message design needs to take them into account to make learning effective.

To qualify for public school special education services and accommodations, students with disabilities must meet eligibility requirements after completing a nondiscriminatory and multifaceted evaluation process (Miller, 2009). Individuals with learning disabilities often display a deficit between skill and ability, which is manifested by difficulties with communication, academic, and cognitive skills. While individuals with emotional disabilities experience academic and behavioral needs due to presumed emotional regulation difficulties (Heward, 2009). Moreover, individuals with intellectual disabilities are also a diverse group that displays mild to severe learning needs, which includes deficits with intellectual and adaptive behaviors. Intellectual disabilities are also associated with co-occurring conditions, including epilepsy, cerebral palsy, and/or physical and mobility needs. Students may also qualify for special education services for deaf/hard of hearing and/or blind/visually impaired, and other health impairment (i.e. conditions that impact alertness to the educational environment). Finally, students with Autism display difficulties with communication, social skills, and

managing personal behaviors. Approximately 30% of all individuals with Autism are non-verbal with communication, and 30% of all individuals with Autism also have an intellectual disability (Westling & Fox, 2009).

Although diverse, students with disabilities benefit from common instructional strategies to promote skill development. Students with disabilities that access the general education curriculum may likely benefit from instructional strategies that support academic and cognitive deficits. These strategies may include information organizers, supportive/organized settings, sequenced/focused instruction, knowledge/background information instruction, and direct/explicit instruction (i.e. modeling, demonstration, and scaffolding) for reading, math, and writing skills (Miller, 2009).

Learners with low incidence disabilities, including students with moderate to severe intellectual disability, Autism, and/or developmental disabilities, may access an adapted education curriculum. Students with low incidence disabilities benefit from strategies to promote skill development, including direct instruction, repeated practice, specific feedback, prompting procedures, behavior management, and task analysis. Educators should utilize concrete objects, examples, and multimedia resources to support content instruction. Furthermore, learners with intellectual disabilities and/or Autism may benefit from instruction that promotes skill acquisition and generalization, as well as individualized supports for communication and sensory needs (Westling & Fox, 2009). Downing (2010) described how students with low incidence disabilities benefit from community and career instruction experiences, and instruction across academic and life skill domains, as appropriate. Prater, Carter, Hitchcock, and Dowrick (2012) described how skill modeling and demonstration support learners with developmental disabilities, including how positive self-modeling is particularly effective. Finally, Van Laarhoven, Winiarski, Blood, and Chan (2012) outlined how educators and programs can support vocational skill development for students with developmental disabilities, including ensuring consistent access to career and work experiences during the middle and high school years.

Students with high and low incidence disabilities may also benefit from accommodations to promote skill development, including extended time, read aloud, assistive technology, reduced assignments, simplified language/plain English, adapted furniture and tools, and

calculator and math aids. IEP teams may provide accommodations during classroom instruction and testing settings, as well as during community and school activities (Heward, 2009). Finally, Students with high incidence disabilities benefit from transition planning, including state rehabilitative agency referral, training/education resources, and post-secondary disability support services (Heward, 2009). Moreover, transition planning and service coordination is crucial for students with low incidence disabilities and may include evaluation and training, along with community, independent living, and employment supports, as appropriate (Westling & Fox, 2009).

Students with disabilities represent a diverse group with a wide variety of learning needs. Many students with disabilities are educated alongside their same-aged peers in general education programs, while others are placed in self-contained classrooms to support more complex learning needs. Furthermore, some students with disabilities may participate in a general education program and graduate high school with a standard diploma, while others will participate in an adaptive education program and will earn a special diploma when they age out of public school at 22 years old. Unfortunately, students with disabilities experience higher rates of high school dropout and reduced enrollment in post-secondary education programs.

Post-Secondary Education and Career Outcomes

As of 2002, students with disabilities had an overall standard diploma high school graduation rate of about 51%. Unfortunately, a significant portion of students with disabilities do not complete secondary education programs, including about 60% of students with emotional disabilities and about 17% of students with Autism (Heward, 2009). Moreover, 66% of all individuals with disabilities are unemployed after leaving school, and about 53% are not enrolled in post-secondary education programs (Kellems & Morningstar, 2010).

Unique challenges for individuals with Autism.

As previously discussed, individuals with developmental disabilities, including Autism, experience poor outcomes when compared to their peers with other disabilities, including higher rates of disengagement from their community and unemployment. Individuals with developmental disabilities, including Autism, experience about a 75% rate of unemployment (Van Laarhoven et al. 2012). These skills may include qualitative deficits in communication (i.e. delayed/atypical language development), social reciprocity (i.e. difficulty understanding/interacting with others), and behavior (i.e. repetitive movements; the need to adhere to strict routines) (Batshaw, Roizen, & Lotrecchian, 2013). Often, individuals with Autism display significant deficits with skills that are primarily needed for successful employment and independence (Wilczynski, Trammell, & Clarke, 2013).

Video-Based Instruction for Individuals with Disabilities

Video-based instruction, including video modeling and prompting, has a relatively large research base for efficacy in supporting skill development for students with developmental disabilities (Bross, Zane, & Kellems, 2018). Video modeling has been traditionally developed with recordings of an individual completing target tasks, which may be then viewed by the learner before completing the same target task. Video self-modeling is developed with edited recordings of learner displayed positive exemplars of work completion, which is also viewed by the learner before initiating and completing the corresponding task. In contrast, video prompting is developed with short duration video clips that the user views in sequence as they complete individuals task steps (Bross et al., 2018).

Individuals with developmental disabilities often benefit from visually cued instruction that relies more heavily on visual information processing than verbal information processing. Moreover, these learners also appear to benefit from a limited area of focus during instruction, which helps support difficulties with managing selective attention and social interactions (Corbett & Abdullah, 2005). Video based instruction enables students with disabilities to directly observe and imitate target behaviors and skills,

which can be further aided by the type of video instruction that is utilized. Furthermore, the necessity for social interaction is diminished with video-based instruction, as the learner attends to technology features for task instruction. Bross et al. (2018) proposed that video modeling may be an appropriate method when teaching short, basic tasks to students with Autism. While video prompting may be a more efficient method when teaching detailed, multi-step complex work tasks (Bross et al. 2018).

Academic Video-Based Instructional Design

Prater et al. (2012) reviewed academic video-based instruction interventions for students with disabilities, which included research based applications of video modeling and video self-modeling. Video self-modeling is developed with edited recordings of the target student completing exemplars of target work tasks. While video modeling is developed with recordings of other individuals completing target tasks. In the reviewed studies, video-based instruction was developed to teach oral and reading fluency, reading comprehension, behavior management, math, writing, and academic task management skills (Prater et al., 2012).

Video self-modeling instruction to teach reading skills.

Bray, Kehle, Spakman, and Hintze (1998) developed video self-modeling instruction to support reading fluency skill development for students with specific learning disabilities and students at risk for academic difficulties in a third-grade general education classroom. The researchers recorded the students reading, and then used editing tools to develop an up to 5-minute video model that displayed only fluent reading. The students then reviewed the video models, and subsequently displayed increased reading fluency, when compared to students with disabilities that did not receive the intervention.

Likewise, Hitchcock, Prater, and Dowrick (2004) developed video self-modeling instruction to support reading comprehension skills for learners with disabilities for first grade with and without specific learning disabilities. Self-model video recordings were developed while the students used a graphic organizer for reading

content to answer factual questions. The students reviewed the video self-modeling before completing reading comprehension work. Students that received the video self-modeling intervention displayed increased comprehension over a sustained period of time. Finally, Marcus and Wilder (2009) developed video self-modeling instruction to letters and symbol identification to students with Autism. Video models were developed that depicted the student or peer successfully identifying the items. After the intervention, the data revealed that the students responded with increased accuracy after viewing the video self-modeling instruction (Prater et al., 2012).

Video self-modeling instruction to teach writing skills.

Delano (2007) developed video self-modeling instruction to support writing skill development for students with Autism (i.e. Asperger Syndrome). The research was completed to identify if video-based instruction could promote the use of self-regulation tasks necessary for independent writing. The researchers created the video self-modeling by recording the students while using effective writing strategies to increase word count and essay organization elements. After reviewing the video self-modeling all of the students displayed increased writing skills. However, it should be noted that not all students maintained the displayed writing skills over time (Prater et al., 2012).

Video self-modeling instruction to teach math skills.

Schunk and Hanson (1998) developed video self-modeling instruction to support basic math skill development for learners with below average math scores. Videos were recorded for peer and self-models for completing math operations with fractions. After implementing the intervention, the students displayed significantly increased accuracy after reviewing the video self-modeling (Prater et al., 2012). Kellems et al. (2016) also developed video prompting instruction to teach functional math application skills to transition aged students with disabilities. Video prompting was developed to depict step by step directions for calculating a tip, determining unit item prices, and adjusting a recipe for different servings. The research

participants displayed increased task accuracy while reviewing the video prompting. In contrast to video modeling (i.e. recording of entire work task), video prompting is developed with recorded segments that are viewed in a step-by-step manner while completing a target work task (Kellems et al., 2016).

Video self-modeling instruction to teach personal management skills.

Hartley, Kehle, and Bray (2002) developed video self-modeling instruction to promote increased classroom participation during language arts instruction for students that displayed difficulties with participation skills. Video self-models were developed by recording the target students while raising hands during instruction and appropriately answering questions. After implementing the intervention, the students displayed increased and sustained appropriate participation during language arts instruction (Prater et al. 2012). Additionally, Clare, Jenson, and Kehle (2000) developed video self-modeling instruction to support independent on task academic work behaviors for students with disabilities. Videos were recorded of the students while they displayed on-task behaviors during independent work. After implementing the intervention (i.e. students viewed video self-modeling of target behaviors), the students displayed significantly increased and sustained on-task academic behaviors while working independently (Prater et al., 2012).

Vocational Video-based Instructional Design

Video-based instruction was identified as an effective, research-based instruction method to teach vocational skills to students with disabilities by Seaman and Cannella-Malone (2016) in their review of vocational interventions for students with Autism. Video-based instruction represented about 62% of the reviewed pre-employment and job maintenance vocational interventions, which included forms of video prompting and video modeling with mobile and computer technology (Seaman & Cannella-Malone, 2016). Video prompting is developed with short duration video clips of specific task steps, while video modeling includes a longer duration video of a chained task-

sequence to depict the overall work task from start to finish. Video prompting instruction has been identified to be more effective when teaching vocational tasks to students with low incidence disabilities than when compared to utilizing video modeling instruction to teach the same tasks without the segmented video prompting (Burke et al., 2013).

Allen, Wallace, Renes, Bowen, and Burke (2010) developed video modeling instruction with video recording technology to teach young adult individuals with Autism to perform work as a department store mascot. The research participants were instructed to view a video model on a television screen that displayed different target body movements to entertain the store customers. After viewing the video modeling instruction for at least two trials, the participants subsequently displayed the mastery criteria of the mascot entertainment tasks. The research participants expressed that they found video instruction to be an acceptable intervention, and enjoyed the mascot work tasks (Allen et al. 2010).

Alexander, Ayres, Smith, Shepley, and Mataras (2013) developed video modeling instruction to teach mail sorting task generalization skills to young adult learners with developmental disabilities. Alexander et al. (2013) developed the video instruction with a task analysis and design features, including zoom angles for detailed task steps, camera recording stops and focuses on text for mailboxes, point of view video angles, and task narration. The participants viewed video modeling instruction on an Apple iPad before completing the target tasks. After the video modeling intervention, most of the research participants consistently displayed mastery criteria accuracy while completing the mail sorting tasks (Alexander et al., 2013).

Burke, Allen, Howard, Downey, Matz, and Bowen (2013) developed video prompting and video modeling instruction to teach an authentic, 102 step shipping and handling task to young adult with developmental disabilities. The researchers developed step-by-step directions for target tasks by collaborating with the shipping and handling company, which resulted in different task analyses with up to 102 steps. Video prompting and modeling instruction was developed with recordings of target tasks with zoom/wide angles, and task narration. Burke et al. (2013) then utilized Video Tote, an app to organize the video based instruction into 36 chapters. The Video Tote app was previously developed with a grant for disability research

funding, which included collaboration to develop the app with universal design features for the target learner population. The app was designed with an easily navigable interface that allowed users to quickly navigate to desired videos and press/pause play by touching the screen anywhere. The participants were instructed to review the video prompting instruction at home and as needed while completing the work tasks. After implementing this intervention, all the participants displayed mastery criteria for task completion (Burke et al., 2013).

English et al. (2017) developed video prompting and modeling instruction with video-based feedback to teach gardening vocational task skills to young adults with developmental disabilities. English et al. (2017) created a task analysis for the target gardening work tasks, recorded video instruction with a digital camera, and then created the video prompting and modeling instruction with an Apple iPad and Apple's iMovie application. The participants were shown how to review the video prompting and modeling, which was also available to utilize during task completion. The researchers also recorded the participants' work completion and shared video-based feedback. After implementing the video-based instruction and feedback intervention, all the participants displayed significantly increased task completion accuracy (English et al., 2017).

Van Laarhoven et al. (2012) developed video modeling instruction to teach vocational work task maintenance skills to students with developmental disabilities. The researchers created a task analysis for familiar student work tasks, and then developed video modeling instruction with narration, including short recorded segments, zoom/wide angles, and point of view video angles. The research participants were instructed to review the video-based instruction on an Apple iPad while on an extended break from school. After implementing the video-based instruction intervention, all of the research participants displayed increased independence and task completion accuracy, along with skill maintenance and generalization (Van Laarhoven et al., 2012).

Bereznak, Ayres, Mechling, and Alexander (2012) developed video self-prompting instruction to teach basic office work tasks to students with developmental disabilities. The researchers created a task analysis and then recorded the office task steps to create video prompting instruction. The video prompting had embedded text to prompt the student to pause the video before completing the

corresponding task step, which was displayed with an Apple iPhone in horizontal view. Design features also included embedded task narration, zoom angles, and first-person point of view video recording. The participants were provided with training on using the iPhone interface and activating the video prompts. After implementing the intervention, most of the research participants displayed mastery criteria for task completion. Importantly, Bereznak et al. (2012) implemented video prompting instruction with students with more severe developmental disabilities than in previous research studies.

Bross, Zane, and Kellems (2018) described how to develop video modeling instruction to support customer skill development for students with Autism. Students with Autism often have difficulty managing social workplace interactions, so the researchers proposed developing video modeling to help teach routine social communication skills necessary for successful employment. Developing video modeling may be completed with an eight-step process, which includes identifying job expectations and target skills, and developing tasks analyses. Next, the practitioner should plan for video production, which includes selecting appropriate technology and script creation, along with obtaining consent as needed. Next, video modeling is recorded and edited, and the intervention is implemented with fidelity. Finally, the intervention process should be monitored for progress and effectiveness (Bross et al. 2018).

The common thread through these studies is the evidence for the effectiveness of video based instructional message design to help these populations of young adults learn skills and processes to help their employment prospects.

Conclusion

Instructional message design for learning with disabilities has been an under researched area of instructional design. Individuals with disabilities are entitled to PreK-12 educational rights, which are mandated by the federal law, IDEA. IDEA is the result of significant advocacy for individuals with disabilities and has continued to be bolstered and expanded during subsequent congressional reauthorizations since 1975. Public school programs are required to provide appropriate individualized education plans for students with

disabilities. These education plans should promote skill development and access to the school curriculum and must include a transition plan for students aged 16 years or older. Although federal and state laws mandate special education and transition service coordination for students with disabilities, this unique population continues to experience higher rates of post-secondary education disengagement and unemployment, when compared to peers without disabilities.

There appears to be a research gap between studies that focus on developing video-based instruction to teach academic skills and studies with students with developmental disabilities. Although there are several researchers that have utilized video modeling to support independence and academic skill development for students with disabilities, there is a limited research base that describes this approach across content areas and grade levels. Moreover, there are also several researchers that have utilized video modeling and prompting instruction to support vocational skill development. However, there appears to be a gap in research for teaching complex work task skills with this video-centric instructional message design approach. For instance, how do the tenets of cognitive load theory or multimedia learning theory apply to special needs learners? Although previous researchers have used video-based instruction to teach discrete job task skills, it is important to note that successful employment for individuals with disabilities may rely on the consistent demonstration of a variety of employability skills. Further research is needed in several areas of video-based instruction research, including outlining how video-based instruction can support a multitude of employability skills, managing self, work tasks and responsibilities, and social interactions that are necessary for sustained, successful employment and independence. Video modeling appears to be a beneficial application of instructional message design and should be studied further to better refine best practice.

References:

Alexander, J. L., Ayres, K. M., Smith, K. A., Shepley, S. B., & Mataras, T. K. (2013). Using video modeling on an iPad to teach generalized matching on a sorting mail task to adolescents with autism. *Research in Autism Spectrum Disorders, 7*(11), 1346-1357.

Allen, K. D., Wallace, D. P., Renes, D., Bowen, S. L., & Burke, R. V. (2010). Use of video modeling to teach vocational skills to adolescents and young adults with autism spectrum disorders. *Education and Treatment of Children, 33*(3), 339-349.

Batshaw, M. L., Roizen, N. J., & Lotrecchiano, G. R. (2013). *Children with Disabilities* (7th ed.). Baltimore, MD: Brookes.

Bereznak, S., Ayres, K. M., Mechling, L. C., & Alexander, J. L. (2012). Video self-prompting and mobile technology to increase daily living and vocational independence for students with autism spectrum disorders. *Journal of Developmental and Physical Disabilities, 24*(3), 269-285.

Bray, M. A., Kehle, T. J., Spackman, V. S., & Hintze, J. M. (1998). An intervention program to increase reading fluency. *Special Services in the Schools, 14*(1– 2), 105–125.

Bross, L. A., Zane, T. L., & Kellems, R. O. (2018). Customer skill development for students with Autism Spectrum Disorder using video modeling. *Career Development and Transition for Exceptional Individuals, 1-7*.

Burke, R. V., Allen, K. D., Howard, M. R., Downey, D., Matz, M. G., & Bowen, S. L. (2013). Tablet-based video modeling and prompting in the workplace for individuals with autism. *Journal of Vocational Rehabilitation, 38*(1), 1-14.

Clare, S. K., Jenson, W. R., Kehle, T. J., & Bray, M. A. (2000). Self-modeling as a treatment for increasing on-task behavior. *Psychology in the Schools, 37*, 517– 522.

Corbett, B. A., & Abdullah, M. (2005). Video modeling: Why does it work for children with autism? *Journal of Early and Intensive Behavior Intervention, 2*(1), 2–8. https://doi.org/10.1037/h0100294

Delano, M. E. (2007). Improving written language performance of adolescents with Asperger syndrome. *Journal of Applied Behavior Analysis, 40*, 345– 351.

Downing, J. E. (2010). *Academic instruction for students with moderate and severe disabilities in inclusive classrooms*. Thousand Oaks, CA: Corwin.

English, D. L., Gounden, S., Dagher, R. E., Chan, S. F., Furlonger, B. E., Anderson A., & Moore, D. W. (2017). *Effects of video modeling with video feedback on vocational skills of adults with autism spectrum disorder*. Developmental Neurorehabilitation, DOI: 10.1080/17518423.2017.1282051

Hartley, E. T., Kehle, T. J., & Bray, M. A. 2002). Increasing student classroom participation through self-modeling. *Journal of Applied School Psychology, 19*, 51– 63.

Heward, W. L. (2009). Exceptional Children: An Introduction to Special Introduction (9th ed.). Upper Saddle River, NJ: Pearson.

Hitchcock, C. H., Prater, M. A., & Dowrick, P. W. (2004). Reading fluency and comprehension: The effects of tutoring and video self-modeling on first grade students with reading difficulties. *Learning Disabilities Quarterly, 27*, 89–103.

Kellems, R. O., Frandsen, K., Hansen, B., Gabrielsen, T., Clarke, B., Simons, K., & Clements, K. (2016). Teaching multi-step math skills to adults with disabilities via video prompting. *Research in Developmental Disabilities, 58*, 31-44.

Kellems, R. O., & Morningstar, M. E. (2010). Tips for transition. *Teaching Exceptional Children, 43*(2), 60-68.

Marcus, A., & Wilder, D. A. (2009). A comparison of peer video modeling and self video modeling to teach textual responses in children with autism. *Journal of Applied Behavior Analysis, 42*, 335– 341.

Miller, S. P. (2009). *Validated Practices for Teaching Students with Diverse Needs and Abilities* (2nd ed.). Upper Saddle River, NJ: Pearson.

Murdick, N. L., Gartin, B. C., & Crabtree, T. (2007). *Special Education Law* (2nd ed.). Upper Saddle River, NJ: Pearson.

National Center for Education Statistics (2019). *Children and Youth with Disabilities*. Retrieved August 3, 2019 From: https://nces.ed.gov/programs/coe/indicator_cgg.asp

Prater, M. A., Carter, N., Hitchcock, C., & Dowrick, P. (2012). Video self-modeling to improve academic performance: A literature review. *Psychology in the Schools, 49*(1), 71-81.

Schunk, D. H., & Hanson, A. R. (1989). Self-modeling and children's cognitive skill learning. *Journal of Educational Psychology, 81*, 155– 163.

Seaman, R. L., & Cannella-Malone, H. I. (2016). Vocational skills interventions for adults with autism spectrum disorder: A review of the literature. *Journal of Developmental and Physical Disabilities, 28*(3), 479-494. http://dx.doi.org/10.1007/s10882-016-9479-z

Van Laarhoven, T., Winiarski, L., Blood, E., & Chan, J. M. (2012). Maintaining vocational skills of individuals with autism and developmental disabilities through video modeling. *Education and Training in Autism and Developmental Disabilities*, 447-461.

Westling, D. L. & Fox, L. (2009. *Teaching Students with Severe Disabilities* (4th ed.). Upper Saddle River, NJ: Pearson.

Wilczynski, S. M., Trammell, B., & Clarke, L. S. (2013). Improving Employment outcomes among adolescents and adults on the *Autism Spectrum Disorder, Psychology in the Schools, 50*(9), 876-887.