

Best Practices in Workforce Development for Adults with Disabilities: A Review of the Literature

May 2024

Table of Contents

INTRODUCTION & PURPOSE	2
Benefits of Employment	2
Employment Barriers for Adults with Disabilities	2
Purpose of the Current Literature Review	3
METHODOLOGY	4
KEY CONTENT AND TRAINING TOPICS	4
Takeaways and Implications for UWA.....	4
Overview of Recent Research on Training Content	5
RECOMMENDED INSTRUCTIONAL APPROACHES	7
Takeaways and Implications for UWA.....	7
Overview of Recent Research on Instructional Strategies.....	9
BEST PRACTICES IN ADULT EDUCATION	16
Career Development and Transition Instruction.....	16
Tools to Improve Access to Instruction	17
Universal Design for Learning (UDL).....	18
EXAMPLES OF SIMILAR PROGRAMS.....	18
Assistive Soft Skills and Employment Training (ASSET) Program	19
JobTIPS.....	20
EXECUTIVE SUMMARY	21
Key Content and Topics.....	21
Instructional Approaches	22
Accessible Adult Education	22
Example Programs	22
REFERENCES.....	23

INTRODUCTION & PURPOSE

Benefits of Employment

Employment is more than a mechanism for meeting basic needs and financial stability. It provides people with a sense of purpose and brings dignity and independence to their lives (Birri et al., 2022). Additionally, through work, people engage socially with others, build relationships, and learn new skills (Ellenkamp et al., 2016). Employment is closely linked to well-being and positive health outcomes among people with disabilities (Blustein, 2008), and for adults with intellectual or developmental disabilities (IDD) specifically, employment positively impacts their self-respect, self-assurance, work advancement, and autonomy (Amalky, 2020). Most adults with disabilities express a desire for employment (Ali, Schur, & Blanck, 2011), and competitive, integrated employment of people with disabilities has been shown to have positive effects for employers as well (Lindsay et al., 2018).

Employment Barriers for Adults with Disabilities

Given the benefits of employment for adults with disabilities, there has been a push for legislation supporting competitive, integrated employment for adults with disabilities, as opposed to sheltered workshops. In the past decade, policies such as the Workforce Innovation and Opportunity Act (WIOA, 2014) have led to increased employment opportunities for adults with disabilities (Wehman et al., 2018). Yet, despite these recent policy changes, low employment rates for people with disabilities persist (Gilson et al., 2022), especially when compared to adults without disabilities. 2020 Bureau of Labor Statistics data indicate 31% of people with disabilities were employed in 2019, as opposed to 75% of individuals without disabilities (Fidler et al., 2022).

There are a number of contributors to the negative employment outcomes for adults with disabilities. According to Anderson et al. (2018), there is a strong evidence-base indicating systemic and environmental factors impact employment opportunities and outcomes for adults with disabilities. These factors include:

- Lack of comprehensive or integrated services and communication and interagency collaboration
- Poor person-environment fit (e.g., lack of supports, mismatch between individual skills and work demands)
- Employer and colleague biases and assumptions about individuals' abilities
- Lack of financial resources
- Low parental expectations and involvement

In addition to the external factors listed above, individuals with disabilities may have difficulty with social skills and soft skills, impacting their ability to obtain and maintain employment (e.g., Agran et al., 2016; Lindsay et al., 2014). Within the context of employment, soft skills are

described by Clark et al. (2019) as those related to attitudes, cooperation, reliability, productivity, quality of work, teamwork, and communication. Soft skills are necessary when seeking employment, as they are required for preparing resumes, contacting and communicating with potential employers, and participating in interviews (e.g., Baldwin et al., 2014; Sung et al., 2015). As Tincani and colleagues (2023) state, “If an individual does not know how to search for and identify appropriate job openings, write a resume, apply for a job, or successfully complete an interview, no amount of task skill training will lead to employment” (p. 23). Further, in a survey conducted by Ju et al. (2012), employers cited social skills difficulties as one of the primary reasons for not recruiting workers with disabilities, regardless of whether a person has adequate technical skills.

Once employed, individuals are expected to demonstrate adequate work-related social skills to retain their job. Most employers acknowledge that technical, job-specific skills can be taught on the job, but without the requisite soft skills, employees may face challenges as they integrate into the work environment (Gilson et al., 2022). For example, the extent to which an employee has mastered soft skills may impact their ability to remember and complete job tasks, follow directions, effectively communicate with colleagues, and problem-solve (e.g., Baldwin et al., 2014). Difficulty demonstrating these skills has been shown to contribute to job termination, underemployment, and unemployment (Scott et al., 2017).

Purpose of the Current Literature Review

Given the importance of soft skills on employability, people with disabilities should be afforded opportunities to develop these skills and enhance their workforce readiness (Agran et al., 2016). Thus, the basis of this literature review is to provide an overview of contemporary research on workforce development and adult education of people with disabilities. Results of the review will be used to inform the design of Minnesota Diversified Industries’ Unified Work Academy (UWA) program evaluation and identify alignment of current UWA programming with best practices. In sum, the aim of this review is to answer the following question:

What are best practices in workforce development for adults with disabilities?

METHODOLOGY

Formal journal databases searched included Academic Search Premier and ERIC. Search terms used to conduct the search included: work* OR job* OR vocation* OR career* OR employ* OR occupation* AND develop* OR train* OR counsel* OR readiness OR skill* AND adult* OR person* OR people OR individual* AND disab* OR impair*. Results were limited to peer-reviewed literature published in the United States, in English, and between the years 2017-2024.

The database search yielded 135 publications, whose titles and abstracts were scanned for relevance. It should be noted that in addition to this formal database search, some literature was obtained from university colleagues with relevant expertise (e.g., the Institute on Community Integration), and some through an ancestral search of the collected publications. As a result of this comprehensive search process, approximately 40 pieces of literature on workforce development for adults with disabilities were reviewed.

KEY CONTENT AND TRAINING TOPICS

Workforce development training topics for adults with disabilities, as supported by the research, are highlighted below. Then, a summary of the literature used to inform these key takeaways is provided.

Takeaways and Implications for UWA

Research indicates that a variety of relevant skills are necessary for employability; thus these skills should be addressed in workforce development programs for individuals with disabilities. Importantly, individuals need more than job-specific technical skills to be successful in the workplace. Training topics need to span across pre-employment and those required for maintaining a job. Of note, it is difficult to prescribe an exact list of topics and skills that should be covered by UWA due to differences in how researchers conceptualize employment-related soft skills. For example, one researcher may have considered punctuality and attendance to fall within the larger “time management” umbrella; whereas others conceptualize these as unique topics. That said, the following may serve as a starting point for UWA.

The literature supports addressing the following **job-seeking skills** in pre-employment training, which UWA should consider incorporating in their programming:

- Career exploration
- Finding available jobs
- Developing resumes
- Completing job applications
- Interviewing for jobs

Much of the literature around job maintenance interventions involves **soft skills training**. Within the context of employment, this may include instruction on specific work-related social skills,

such as seeking clarification for unclear instruction and interacting with clients. Employers consistently prioritize the following job skills among their employees; thus, UWA may consider including these topics in their trainings:

- Time management
- Work ethic
- Dependability
- Punctuality
- Communication skills
- Problem solving
- Attendance
- Good work habits
- Respect
- Teamwork
- Integrity
- Honesty

Researchers suggest **limiting the scope of training programs**, and the content should be tailored to the needs of the participants. For example, UWA may consider offering participants an intervention that targets introductory employability and soft skills before transitioning into a more advanced program that covers complex and abstract skills. Alternatively, a pre-employment intervention may target job seeking skills, exclusively, as opposed to expanding into job maintenance skills. This also speaks to the need for **clearly identifying the training audience**, and understanding the audiences' specific strengths, weaknesses, and goals so that trainers can deliver a more impactful and relevant training experience.

Overview of Recent Research on Training Content

In their book chapter, Fidler and colleagues (2022) state that a variety of relevant skills (e.g., social skills; personal care; self-management skills) should be taught when preparing individuals for obtaining and maintaining employment. They cite Lee & Taylor (2021) in their explanation that, “transitioning to the workforce is a significant step for all young adults and it requires more than just the requisite technical skills to perform specified job duties” (p. 118).

Similarly, in their chapter within the *Handbook of Autism and Pervasive Developmental Disorder*, Gilson et al. (2022) report that **employers consistently prioritize the following job skills among their employees: time management, work ethic, dependability, punctuality, communication skills, problem solving, attendance, good work habits, respect, teamwork, integrity, and honesty**. The authors cite Agran et al. (2016), who reported that the following social skills that are most important for employment include (a) seeking clarification for unclear instructions, (b) arriving at work on time, (c) refraining from inappropriate touching of others, (d) carrying out instructions needing immediate attention, (e) notifying the supervisor for assistance, (f) responding appropriately to critical feedback, and (g) interacting with clients.

Gilson and colleagues (2022) explain that these skills can be conceptualized into “domains,” and they describe various ways in which these domains have been conceptualized. One of these models, originally developed by Carter and Wehby in 2003, involves four skill domains:

- **General work behaviors:** promote professionalism in the workplace across a variety of employment positions (e.g., arriving on time, communicating with an employer when

sick or running late, demonstrating enthusiasm for the job, and refraining from personal business while on the clock)

- **Work performance behaviors:** non-social behaviors related to productivity (e.g., following directions within an appropriate amount of time, focusing amid distractions, working without direct supervision, completing work of good quality)
- **Task-related social behaviors:** interactions directly related to fulfilling the job expectations (e.g., asking for help when needed, accepting constructive feedback from supervisors or co-workers, and asking for clarification when they do not understand what to do)
- **Non-task related social behaviors:** interactions unrelated to completing the job task (e.g., using and understanding appropriate humor, listening to others, and disagreeing without arguing)

Gilson and colleagues also describe a model created by Ju et al. (2012). This model includes similar employment skills domains as those described by Carter and Wehby (2003), but there are an additional two dimensions:

- **Personal traits:** taking responsibility for one's actions, honesty, ability to adapt to change, an interest in work, and motivation to work
- **Higher order thinking:** recognizing one's mistakes, solving problems, creative thinking, resolving conflict, making plans, and working toward goals

Within the 2022 book chapter by Gilson et al., the authors cite Gilson and Carter (2018), who state that instruction needs to include both task independence (i.e., mastery of general work behaviors and work performance behaviors) and social integration (i.e., mastery of non-task-related and task-related social behaviors) to adequately prepare individuals for finding, acquiring, and maintaining employment. However, the authors caution that, given such a wide array of skills, broadly focused training programs are unlikely to be effective. Instead, they recommend that intervention content be tailored to an individual's needs so that the most critical skills are addressed.

With regard to the specific features and topics covered in existing interventions, Wissel and colleagues (2022) conducted a systematic literature review of 140 studies involving 16-24-year-olds with Intellectual and Developmental Disabilities (IDD). They examined programs, models, and strategies currently or recently used to support employment outcomes for young adults with IDD and common features. Nearly half of the publications included a soft skills element such as training on social communication skills, problem solving, and professional behavior. More than fifty publications included job development elements, such as identifying and applying for jobs, developing resumes, practicing interviews, identification of job opportunities, and training on workplace skills that are not occupation-specific. Programs delivered before employment tended to focus on work attainment either through improving interviewing skills or through teaching

specific vocational skills in a training setting. Of the studies using rigorous research designs, none of them examined employment as an outcome variable. However, they detailed improvements in behaviors that could lead to future employment (e.g., self-determination).

More recently, as a result of their umbrella review of vocational interventions for adults with ASD, Tincani et al. (2023) reported that any job comprises a number of tasks that must be completed; thus, much of the literature has focused on teaching job-specific tasks. An assumption of this research is that developing these types of skills will correspond with the attainment of employment. Based on their review, it is evident that **few studies have examined comprehensive interventions** that include components directly related to obtaining and keeping a job. The authors suggest there is a need for additional research related to career exploration, job seeking, interviewing, and soft skills.

Finally, through a review of the literature, Coñoman et al. (2024) examined programs, services, and interventions that support people with intellectual disabilities in the process of transitioning to work. From their review, it appears that current initiatives in the field of career and vocational guidance primarily focus on three aspects:

- Self-awareness work, which includes self-concept, self-motivation behaviors, and occupational self-analysis
- Emphasis on mentoring of various kinds (intergenerational mentoring, personalized life design, student leaders, and associations)
- Support-based approaches (primarily naturalistic supports)

With regard to topic coverage, Coñoman et al. (2024) concluded that positive effects have been observed in experimental groups, particularly in areas such as **career planning** and **interview skills**. Thus, it may be beneficial to include these content areas in pre-employment training programs.

RECOMMENDED INSTRUCTIONAL APPROACHES

In this section, readers will find key information on approaches to workforce development instruction for individuals with disabilities. A summary of the literature that informed these themes is also provided.

Takeaways and Implications for UWA

Through review of the extant research, the following key takeaways have emerged:

- An evidence-based approach to training is *instruction + modeling + opportunities for practice with feedback*.

- In developing their program, UWA should feel free to use in-person modeling. However, there is also a large body of evidence supporting the use of video modeling. Note that video-based interventions are most effective when combined with other forms of support.
- Technology-based instruction, such as video-modeling, virtual or augmented reality, and use of iPhones for delivering cues, has been shown to be highly effective in promoting employment skill development and independence. UWA may consider ways to incorporate technology into training.
- Think about how to incorporate various accommodations and supports into instruction.
 - UWA may consider using **self-management instruction and strategies**, such as checklists.
 - Instructional supports may include **picture and tactile-supports** and **AAC**, but these haven't been the *priority* component in many programs.
- Incorporate **behavioral principles and reinforcement** (e.g., antecedent prompts) where possible.
- Experiential learning opportunities, such as internships, work-based learning, and **instruction in the naturalistic environment should be made available when possible**, as work experience (paid or unpaid) has been a feature in several programs and studies.
- Online instruction - as well as in-person instruction - has been shown to be effective modalities. Thus, UWA is encouraged to continue delivering training using both their **virtual and mobile modalities**.
- There is limited information regarding adequate frequency, intensity, and duration. Of the research that does exist, these elements vary widely depending on the program goals and individual characteristics. However, some insight can be gleaned from the literature, for example:
 - Programs with demonstrated efficacy have been completed in **group sessions over several weeks** (Wissel et al., 2022).
 - One meta-analysis, although not exclusive to the United States, concluded, “**long-term training programs (i.e., programs between 6-12 months) are advisable** if we want to strengthen issues like career planning and the development of vocational expectations and identities” (González & Marhuenda-Fluixá, 2021, p. 325). Thus, UWA may consider offering a series of training sessions that span the course of several weeks or months.
- Reviews have indicated that among programs serving people with IDD, few systematic differences between the programs that served individuals with ASD, specifically, and those that served individuals with other types of IDD.

A combination of approaches will likely be needed when designing a workforce development program. As Gilson and colleagues (2022) explained, “**If the skill instruction is primarily coming from a live person, it will likely involve: direct instruction, simulation instruction,**

and peer instruction. These approaches are useful when teaching new skills using the traditional instructor modality or training a natural support to provide the instruction” (p. 1572). That said, a combination of the elements described above is likely to lead to desired outcomes.

Overview of Recent Research on Instructional Strategies

In 2014, Walsh and colleagues conducted a systematic review of the literature on employment development practices for adults with autism spectrum disorder (ASD). Through their review of 17 studies, they found evidence for a variety of strategies. In each of the studies reviewed, participants demonstrated satisfactory performances in their target behaviors. The target behaviors were broad, and included specific job skills (e.g., wearing a WalkAround costume to promote a business, T-shirt folding in a retail job), general job skills (e.g., requesting assistance for a work-related problem), and interviewing skills. Further, most maintained their skills when assessed one- to three-months post-intervention. Strategies deemed effective included:

- **Reinforcement-based procedures** (e.g., verbal praise)
- **Antecedent-based strategies** (i.e., cueing or prompting a person to initiate or continue a task, such as an audible “beep,” showing a picture, or verbally prompting)
- **Video modeling** (learners watching a videotape of a person(s) demonstrating an entire skill or task, then being instructed to practice all steps of the skill together)
- **Video prompting** (learners watching a video of a person(s) demonstrating a single step of a task, then practice that single step)
 - Note that video *prompting* has been shown to be more effective than video *modeling* among individuals with moderate to severe developmental disabilities (Banda et al., 2011)
- **A combination of these strategies**, for example:
 - Video modeling + prompts/cues + visual supports
 - Prompts/cues + feedback via covert audio coaching
 - Verbal instruction + video modeling + prompting

Seaman and Cannella-Malone (2016) also conducted a systematic review of employment intervention studies for individuals with ASD, but included pre-employment skills and school-based interventions for adolescents as well as employment retention skills. Through their review, technology-based interventions (e.g., use of an iPhone, computer, videos, two-way radio and headset) were found to be highly effective in promoting independence. One reason technology is highly effective with this population is it provides multiple opportunities to review steps, which is especially useful for individuals who need repeated practice or have memory difficulties. In addition, technology is easy to incorporate into the real-world setting, allowing for real-time feedback.

In a similar literature review, Anderson et al. (2017) examined existing literature to identify evidence-based interventions to enhance employment in adults with ASD. The authors sorted interventions into three categories: Behavior Skills Training (BST; Baer et al. 1967), video-based interventions, and self-management interventions (e.g., incorporating choice or goal setting). The strongest evidence is in support of a procedure called Behavior Skills Training. BST involves a series of several strategies rooted in applied behavior analysis, including:

- Instruction
- Modeling/demonstration
- Prompting if required
- Rehearsal or practice
- Providing corrective feedback and/or reinforcement as appropriate

Research investigating BST as an approach to workforce development has been consistently rigorous. Further, the specific combination of strategies that comprise BST promotes completion of job-specific tasks. They also noted that although there are a limited number of rigorous research studies investigating the use of video-based instruction and self-management procedures, available evidence suggests these are promising practices in maximizing independent employment (e.g., on-task behavior, job-specific tasks, socialization skills).

Gilson and colleagues (2017) systematically reviewed 56 studies investigating how to teach job skills to secondary students with IDD. Notably, the authors found dosage and procedures to vary widely across interventions, and many studies did not include a detailed description of these characteristics at all. However, the authors were able to identify 21 instructional practices which they classified into eight different intervention approaches. For each of the eight approaches, research has shown positive or strong positive effects on target skill performance across participants, settings, and outcome measures. Target skills varied across studies, including job-specific skills (e.g., packaging items or answering phones), socialization and conversation skills, asking questions, task engagement, and task completion. In 2022, Gilson and colleagues further reviewed these strategies and approaches, offering situations in which they may be useful (see Table 1).

Table 1
Summary of Intervention Approaches for Individuals with IDD from Gilson et al. (2022)

Approach	Description	Usage
Self-management instruction	Students use a system that can be operated by the student when an instructor is not present (e.g.,	<ul style="list-style-type: none"> - Practicing and refining newly acquired skills - Further facilitating independence in the workplace

Approach	Description	Usage
	auditory prompting, self-monitoring checklist, goal setting)	
Video-based instruction	Using videos to model skills and/or provide prompts and feedback	<ul style="list-style-type: none"> - Teaching employment skills to students who are able to imitate behaviors - Practicing previously learned skills that may need to be refreshed
Audio-based instruction	Covert prompting, cues, and correction or job task reminders (e.g., a buzzer that goes off when it is time to switch tasks)	<ul style="list-style-type: none"> - Job coaching - Independent on-the-job support
Picture and tactile-based instruction	Using pictures or symbols to prompt and cue next steps in job tasks	<ul style="list-style-type: none"> - Providing cues and prompting next steps in job tasks
Direct instruction	Involves having an instructor present and delivering instruction	<ul style="list-style-type: none"> - Teaching and developing new job skills
Augmentative and alternative communication (AAC)-assisted instruction	Teaching students to use AAC devices to complete job tasks and/or improve social communication skills	<ul style="list-style-type: none"> - Useful when working with students who use AAC devices - Can be used to promote communication or complete work-related tasks
Simulation instruction	Teaching a specific skill in one setting and evaluating it in a second (e.g., teaching individuals how to wrap silverware in the classroom and then evaluating their performance in a restaurant during community-based instruction)	<ul style="list-style-type: none"> - Modeling job skills - Practicing skills in the classroom before attempting them at the job site
Peer-delivered instruction	Using peers in the natural setting (i.e., people who interact with the individual in the workplace on a regular basis, but who do not have	<ul style="list-style-type: none"> - Teaching new skills - Refining previously learned skills

Approach	Description	Usage
	an explicit obligation to provide support.)	

Anderson et al. (2018) reviewed qualitative research on the transition to adulthood for individuals with ASD. They reported that facilitators of this transition related to employability include (a) individualized supports and environmental modifications, such as intentional peer interactions, product and process accommodations, and sensory adjustments, (b) gradual transition to diverse supports, (c) information sharing and collaboration among agencies, and (d) experiential learning opportunities.

Through a systematic review of the literature, Lee et al. (2018) investigated the design, delivery, and outcomes of interventions that aim to enhance the employment experiences for youth and adults with ASD. Their review of 39 studies suggested that research in this area is somewhat limited, but provides preliminary evidence for a variety of employment interventions. The authors reported that, unfortunately, it is unclear which interventions work for whom, as there may be differences in efficacy based on age and disability “severity.” For example, people in the earlier stages of their career development may be interested in learning about career exploration and experience building, whereas older adults may be looking for guidance on how to leverage their existing skill sets.

Partially because of the heterogeneity among what works for whom and under what conditions, but also due to lack of reporting in studies, Lee and colleagues were unable to draw strong overarching conclusions about intervention program design and delivery. Most studies didn’t report the use of a standardized frequency and duration for the intervention. Across the publications which did report on these characteristics, frequency and duration varied dramatically. As such, the authors state, “it is inconclusive to provide a specific recommendation for the optimal level of intervention for specific characteristics of individuals based on their age, functional level, complexity of task, and learning ability” (p. 280). With regard to individual versus group-based programs, the authors concluded that a combination of these two formats is the ideal route. They also recommend that to accommodate the diversity among individual characteristics, goals, and experiences, a variety of instructional approaches be utilized, including live facilitation, audio, video, and self-monitoring, and virtual technology.

The effectiveness of video-based interventions (VBIs) in promoting integrated competitive employment for adults with ASD has been examined again more recently (Munandar et al., 2020). Literature review findings indicated that VBIs were effective in teaching job interviewing skills, various job performance skills, and some social communication skills (e.g., making requests, responding appropriately to greetings). Video modeling and self-modeling were found

to be equally effective in teaching job performance skills; thus, the authors suggested practitioners consider participant comfort with viewing themselves on video when determining which type of VBI to use. Notably, the authors cautioned that VBIs tend to be more effective when combined with another form of support, such as with in-person feedback or written instructions.

In 2021, Barczak and Cannella-Malone reviewed 47 studies on vocational self-management interventions for adults with significant intellectual disabilities. To be considered a self-management intervention, the studies must have included participants discriminating between appropriate and inappropriate behaviors, accurately monitoring their own behavior, and/or rewarding themselves for appropriate behavior. Self-monitoring interventions were found to be highly effective in increasing on-task behavior, completing tasks, and demonstrating appropriate social or communication skills. These findings were consistent across a variety of sheltered and competitive employment settings and roles, and were typically maintained over time (up to one year post-intervention). In most of the studies, self-management instruction entailed an auditory, pictorial, or video-based technology delivering prompts. More than half of the studies included multiple self-management elements (i.e., self-delivered prompts, self-monitoring, self-recording, self-delivered consequences) as well as other components (e.g., reinforcement, modeling). Thus, it is unclear the extent to which self-management techniques in isolation contributed to positive outcomes. The authors also provide the disclaimer that self-management techniques, while beneficial for maintaining employment, are not necessarily effective in supporting job attainment.

In a systematic literature review by Wissel et al. (2022), 140 studies involving young adults with IDD were examined. The authors examined programs, models, and strategies currently or recently used to support employment outcomes for young adults with IDD and their common features. Wissel and colleagues found that several programs utilized technology-based components, such as video modeling, video feedback, and audio cues. With regard to the training logistics, the authors suggested that training could be delivered before or during employment. In addition, programs were often delivered over the course of several weeks in group sessions through semi-structured curricula. Importantly, results indicated there were “few systematic differences between the programs that served young adults on the autism spectrum and those that did not” (p. 11).

More recently, Birri et al. (2022) reviewed 26 studies that included individuals with “severe disabilities.” The studies investigated the efficacy of workplace social skills interventions. Through their review, Birri and colleagues identified 18 intervention components, the most common of which were performance feedback, simulations, modeling, and verbal instruction. The components with the strongest positive effects on the outcome variables can be found in Table 2.

Table 2*High Impact Intervention Components for Individuals with Severe Disabilities (Birri et al., 2022)*

Outcome Measure	Component
Facilitating conversation initiations	<ul style="list-style-type: none"> - Performance feedback - Simulations - Verbal instruction - System of least prompts - AAC-assisted instruction
Using social amenities, initiating statements for needing assistance	<ul style="list-style-type: none"> - Performance feedback - Modeling - Verbal instruction
Accuracy of responses for offering assistance, responding to feedback, and responses to unclear instructions	<ul style="list-style-type: none"> - Modeling - System of least prompts - Constant time delay

Note. System of least prompts = a prompting strategy where the teacher progresses through a prompting hierarchy from the assumed least intrusive prompt to the most intrusive prompt necessary to obtain a correct response.

Constant time delay = a prompting strategy in which a single prompt is used (the prompt itself does not change); rather, the time (or delay) when a prompt is delivered changes.

With regard to dosage, across interventions, sessions lasted between 4 and 30 minutes and were delivered from 1–3 times per day and 1–8 times per week. The average number of intervention sessions reported was 17.15 (range 3–88 sessions). The mean duration of the entire intervention was 8 weeks (range 1 week–20 months). The authors noted that there were few similarities in intervention characteristics and few studies that met rigorous research standards. Thus, additional replication studies are needed to establish a solid evidence base.

Fidler and colleagues (2022) describe several evidence-based instructional approaches for career and technical education in their chapter in the *International Review of Research in Developmental Disabilities*. These approaches, based on the authors' knowledge of existing research, include:

- Teach a variety of relevant skills (e.g., social skills, personal care skills, self-management skills)
- Utilize behavioral principles and routine-based instruction (i.e., repeated practice, gradual release of responsibility, backward chaining, [video] modeling)
- Leverage individuals' strengths
- Incorporate peer mentoring and natural supports (from non-disabled peers/coworkers)

- Utilize goal-setting and portfolio assessment methods
- When teaching new and emerging skills, offer hands-on learning opportunities in multiple settings and with various levels of support

In 2023, Tincani and colleagues conducted an umbrella review of vocational intervention research specific to individuals with ASD. An umbrella review is a review of previously conducted systematic literature reviews and meta-analyses (Fusar-Poli & Radua, 2018). Through their umbrella review, Tincani et al. discovered that most studies (17%) were conducted in non-inclusionary settings such as sheltered workshops. They stated that this aligns with prior research suggesting instruction in the natural environment is critical as it promotes generalization and maintenance of skills. Findings also indicated that the majority of technology-based interventions focused on providing training and skill acquisition, but less frequently skill maintenance, assistance with performing a job, or job coaching.

Most recently, through a review of the literature, Coñoman et al. (2024) examined programs, services, and interventions that support people with intellectual disabilities in the process of transition to work. Articles were classified into four themes:

- **Career and vocational guidance** (activities that enable people of any age to identify their skills and interests; to make meaningful educational, training, and occupational decisions; and to manage their individual life paths in learning, work, and other settings in which these abilities and interests are useful)
- **Key competencies** (skills needed to participate in society, such as communication; academic skills; digital and technological skills; social and civic competence; sense of initiative; and cultural awareness and expression)
- **School-to-work transition** (the process of changing from education or training to employment, covering the period in which the change takes place)
- **Work-based learning** (the acquisition of knowledge and skills through real-life work experience that complements school-based instruction)

Most programs reviewed in this study focused on development of key competencies, as opposed to work-based or hybrid learning that required partnership with external agencies and employers. Coñoman et al. added that many job skills programs were adaptable into an online training format; however, moderating variables such as the duration of the program, the educational level, or the country in which it takes place, have been identified (González & Marhuenda-Fluixá, 2021).

Coñoman and colleagues stated that for people with mild intellectual disabilities, one of the most common and effective practices for improving skills is video modeling and video prompts. They explained there are many variants of video-based instruction, including social skills programs, augmented reality, behavioral strategies, high-to-low prompting, progressive time delay, and

error correction. That said, the authors caution that in isolation, video prompting strategies are not helpful in acquisition of new job skills. However, the combination of behavioral skills training and video-based instruction has been shown to be effective in improving work-related social skills, job search skills, and self-management skills.

BEST PRACTICES IN ADULT EDUCATION

In 2021, Borradaile and colleagues reviewed evidence on adult education strategies in the following categories: literacy instruction, numeracy instruction, English language acquisition instruction, adult secondary education, tools to improve access to instruction, career development and transition instruction, and individualized and targeted supports for learners. As a whole, adult education best practices appear to be largely divorced from UWA’s model and purpose. Within the context of the current literature review, two domains have relevance: *career development and transition instruction* and *individualized and targeted supports for learners*.

Career Development and Transition Instruction

In defining career development & transition instruction, Borradaile and colleagues included:

- Integrated education and training (IET; a career development and transition strategy that involves training adult learners for an in-demand occupation while simultaneously strengthening their basic skills and soft skills)
- Contextualized basic skills instruction in literacy, numeracy, and English language acquisition
- Coordinated enrollment in adult education and occupational skills training
- Pre-apprenticeships
- Alternative credentialing or badges
- On-ramp and bridge classes (a common adult education strategy to help learners transition from basic skills programming to postsecondary education and occupational training)
- Co-enrollment with developmental education or credit courses at colleges
- Workforce preparation (instruction that focuses on helping students learn skills necessary to be successful in the workforce, such as critical thinking, digital literacy, self-management, and employability)

Results from the systematic literature review indicated a need for more rigorous studies, as there is not enough evidence to guide decision making around instructional and support strategies for adult learners. Of the evidence that is available, **there is limited support for the use of particular adult education strategies listed above over others**. However, bridge classes and IET programs “offer some promise.” Specifically, bridge classes, which combine field-specific

vocabulary and knowledge as well as job seeking skills (e.g., creating resumes, interviewing, and test preparation) show promise for improving adult *educational progress*. Unfortunately, the two studies in this review examining bridge classes did not measure effects of bridge classes on *employment* or *earnings*.

Similarly, research on the effectiveness of IET has shown consistently positive effects on *educational progress*, but inconsistent effects on outcomes related to *employment* and *earnings*. One study examined an IET program that included basic skills instruction, occupational skills training, and workforce preparation. Although these are all components of IET, in this program they were provided sequentially rather than integrated. Even still, the intervention did not have any effects on employment or earnings. Further, many studies investigating the efficacy of IET also included other supports and services, making it difficult to identify which specific components were effective.

Tools to Improve Access to Instruction

Within the Borradaile et al. review, tools to improve access to instruction included the following:

- Distance learning
- Blended learning (instruction delivered through a combination of in-person and virtual instruction, with components integrated and required as part of the course)
- Mobile or online learning tools to supplement instruction
- Technology learning tools or virtual learning environments accessed in the classroom with oversight from an instructor
- Self-paced in-person facilitated learning
- Alternative locations and times to accommodate working schedules
- Intake and orientation models
- Attendance policies
- Employer partnerships

Regarding tools to improve access to instruction, the authors reported that strategies such as distance learning and use of computers in learning are becoming commonplace. Yet, one study included in the review (not specific to persons with disabilities) suggests that **flexible, self-paced program components may negatively affect participant engagement and persistence** (Hamadyk & Zeidenberg, 2018). The authors explained that although the program designers intentionally created a flexible and self-paced program to accommodate participants' schedules and other life demands, some individuals may actually benefit from more structured and predictable training. Thus, although a student-centered, accommodating program is desirable, **UWA is encouraged to limit asynchronous activities** designed for students to complete outside of workshops/sessions.

Universal Design for Learning (UDL)

Borradaile and colleagues touched briefly on accessibility in adult education; however, a framework that warrants further discussion is [Universal Design for Learning \(UDL\)](#). UDL is a framework to optimize teaching and learning for all people based on the science of human learning (CAST, 2018). The **UDL Guidelines** offer concrete suggestions for providing learners with multiple means of (a) **engagement**, (b) **representation**, and (c) **action and expression**. Within each of these three areas, detailed “checkpoints” provide a blueprint for creating flexible instructional goals, methods, materials and assessments that work for every learner. This approach varies dramatically from the one-size-fits-all approach that is typically found in learning environments and classrooms. A matrix depicting the full UDL Guidelines can be found [here](#).

Additional insight was gathered through consultation with Dr. Amy Hewitt, Director of the Institute on Community Integration at the University of Minnesota, on May 24, 2024. Dr. Hewitt explained that it is uncommon for a training to serve participants with IDD and those with sensory and physical disabilities simultaneously due to differences in disability characteristics and support needs. Participants who primarily communicate nonverbally and have high support needs will need a vastly different training than someone who can read and verbally communicate. Thus, she recommended **evaluating the extent to which UWA’s programming aligns with UDL to ensure optimal learning for participants with various disabilities**. For example, Dr. Hewitt posed the following questions for UWA to consider as they develop their training program:

- Are text-based materials at a 5th grade reading level or lower?
- Are visuals incorporated into materials to support content understanding?
- What accommodations are available for people with visual or hearing impairments (e.g., American Sign Language interpreters, closed captioning, text-to-speech technology)?
- How will the learning environment be structured for participants with intellectual disabilities who have high support needs? For example, the curriculum will likely need to be simple with short lessons and ample visuals?

EXAMPLES OF SIMILAR PROGRAMS

Several similar soft-skills pre-employment programs surfaced during the literature review. The soft skills targeted in these programs typically focus on social cognitive and social communication skills; for example, problem solving, professionalism, and self-regulation (Wissel et al., 2022). Given these programs have similar aims (and at times, formats) as Unified Work Academy, they may serve as a model for UWA programming. A handful of these programs are summarized below.

Assistive Soft Skills and Employment Training (ASSET) Program

Michigan State University’s Assistive Soft Skills and Employment Training (ASSET) program uses a social-cognitive approach to improve the work-related social skills for young adults with disabilities (Sung et al., 2019). When originally developed, the training was delivered via weekly small-group sessions over the course of eight weeks, with each session covering a different topic (Connor et al., 2020):

- Communication
- Networking and digital identity
- Attitude and enthusiasm
- Critical thinking and problem solving
- Teamwork
- Professionalism

The program has been adapted over time; originally designed for individuals with ASD, the intended audience has expanded to include persons with a variety of disabilities. Further, though originally spanning eight weeks, topics have been added (mental health and stress management, awareness of self and others) and it is now advertised as a ten-week curriculum on the [ASSET website](#).

ASSET was designed to be a community-based intervention, held in conference rooms instead of classrooms or clinics, in order to promote generalization of learning to the workplace and to facilitate the group process (Sung et al., 2019). Instruction includes didactic lessons, role-playing, and activity-based group games, which provides opportunities to practice skills with peers with guidance and feedback from two facilitators. Additional strategies include video modeling and feedback, visual agendas, PowerPoint slides with images and videos to accompany all sessions, and inclusion of a social hour that provides time to practice learned skills. The format of each session is described below (Sung et al., 2019):

Sequence	Tasks	Time ^a
1. Welcome	(a) Recap last week (b) Preview current week (c) Review home activity	10–15
2. Didactic lessons	(a) Topic of the week (b) Important facts	15–25
3. Activity and discussion	(a) Activities varied by session and theme (b) Included role-play, behavioral rehearsal exercises, cooperative group activities, and video critiques followed by discussion	40–50
4. Self-reflection	(a) Discussion of what was learned and what can be improved	10–15
5. Wrap-up	(a) Final debrief (b) Questions and answers (c) Instructions for home activity due next week	5–10
6. Social hour	(a) Dinner and informal discussion (b) Opportunity to apply soft skills	45–60

^aApproximate minutes.

Preliminary study results suggest that the ASSET program is user-friendly and positively received by participants. Further, significant improvements in social skills and abilities, self-efficacy, and psychological wellness immediately after program completion have been observed (Sung et al., 2019; Connor et al., 2020). However, researchers caution that follow-up studies are needed, as “psychosocial interventions, unlike direct behavioral interventions, are less likely to produce immediate effects” (Sung et al., 2019, p. 1551). Additional research has also explored the effectiveness of the ASSET program when delivered 100% in-person as opposed to using a hybrid approach (50% synchronous online, 50% in-person; Connor et al., 2021). Results indicated although participant satisfaction and soft skills confidence were higher in the hybrid delivery, there were no significant differences in social functioning and self-efficacy between these two delivery approaches. This suggests there may be benefits to using a partially online delivery model.

JobTIPS

Although not a manualized intervention (i.e., a structured curriculum), some insight into content areas and activities can be gleaned from the JobTIPS training tool. JobTIPS is an [online employment training platform](#) that allows users to asynchronously learn about transitioning to the workforce and improving employability skills (Strickland et al., 2013). Although originally designed for teens and adults with ASD, the [JobTIPS website](#) suggests it may also be useful for those with other disabilities because there are, “special resources to help those with learning and communication differences.” The tool includes training on the following topics:

- Determining interests (e.g., social skills assessments, interest inventories, job descriptions and environmental demands)
- Finding a job (e.g., networking, dressing professionally for job fairs)
- Getting a job (e.g., creating resumes, identifying references, completing job applications, interviewing, disclosing a diagnosis)
- Keeping a job (e.g., interacting with a supervisor and coworkers, coping strategies, time management)
- Other job topics (e.g., common employment terminology, resigning from a job, transportation, legal protections)

Each topic includes step-by-step instructions (often paired with icons to support comprehension), video models and video scenarios, video quizzes. Downloadable resources are also available, such as printable scripts, worksheets, organizational tools, and social narratives.

In a 2013 study by Strickland and colleagues, participants who used the JobTIPS program in conjunction with a virtual reality interviewing practice demonstrated significant improvements in some job interview skills. Specifically, increases in appropriate verbal responses were observed, but the body language that accompanied the response (e.g., eye contact, affect, and posture)

didn't show the same level of improvement. The researchers concluded that although the program's content was adequate, practitioners may need to provide more direct feedback to see meaningful results. Of note, by combining online resources, individuals who are geographically remote or those without access to in-person training can access pre-employment support (Strickland et al., 2013).

EXECUTIVE SUMMARY

There are a number of benefits to employment for adults with disabilities; yet, undesirable employment rates for this group persist. Although there are a number of contributors to these outcomes (Anderson et al., 2018), for some individuals, a factor may be social skills and soft skills challenges. These skill gaps can impact the ability of individuals to obtain and maintain employment (Agran et al., 2016; Lindsay et al., 2014). Given the importance of soft skills on employability, people with disabilities should be afforded opportunities to develop these skills and enhance their workforce readiness (Agran et al., 2016). Thus, the aim of this literature review was to answer the question, "What are best practices in workforce development for adults with disabilities?"

We reviewed approximately 40 peer-reviewed publications from the years 2017-2024, many of which were existing literature reviews. We synthesized themes related to (a) instructional approaches of soft skills focused pre-employment programs for adults with disabilities, (b) topics covered within these programs, and (c) best practices in adult education, broadly. A summary of our findings and implications for UWA are as follows.

Key Content and Topics

- Training program content should address a variety of soft skills, as individuals need more than just job-specific and technical skills to be successful in obtaining and maintaining a job.
- Content should include job seeking skills, such as career exploration, resume development, and interviewing skills.
- Although it is difficult to prescribe an exact list of topics and skills to cover due to differences in how researchers conceptualize employment-related soft skills, potential work-related social skills and soft skills that may be covered in training programs include time management, work ethic, communication skills, problem solving, attendance, respect, teamwork, integrity, and honesty.
- Know your audience and customize the content to meet their unique needs. For example, offering a series of interventions in which participants first learn job seeking skills and then transition into job maintenance skills training, may be beneficial.

Instructional Approaches

- A combination of instructional approaches will likely be needed when designing a workforce development program.
- An evidence-based approach to training is *instruction + modeling + opportunities for practice with feedback*.
- Modeling and simulation is effective when done in-person or when done using video technology.
- Technology-based instruction (e.g., video-modeling, virtual or augmented reality, and use of iPhones for delivering cues) has been shown to be highly effective in promoting employment skill development and independence.
- Consider how to incorporate accommodations and individual supports into instruction, such as augmentative and alternative communication (AAC) and self-management checklists.
- Incorporate behavioral principles (e.g., prompting) and reinforcement where possible.
- Experiential learning opportunities have been featured in several programs and studies, and should be made available when possible.
- Online and in-person instruction have both been deemed effective modalities.
- Research on appropriate intervention dosage is inconsistent and limited. However, some insight can be gleaned from studies of effective programs that have taken place over several weeks or months.

Accessible Adult Education

- As a whole, literature on adult education best practices appears to be largely divorced from UWA's model and purpose.
- Results indicated a need for more rigorous studies, as there is not enough evidence to guide decision making around instructional and support strategies for adult learners.
- Universal Design for Learning (UDL) is a framework to optimize teaching and learning for all people based on the science of human learning. The UDL Guidelines offer concrete suggestions for providing learners with multiple means of (a) engagement, (b) representation, and (c) action and expression. It may be beneficial for UWA to examine the extent to which their curriculum and programming aligns with the UDL Guidelines to optimize learning and accessibility.

Example Programs

- Several similar soft-skills employment programs surfaced during the literature review. Given these programs have similar aims (and at times, formats) as Unified Work Academy, they may serve as a model for UWA programming.

- The Assistive Soft Skills and Employment Training (ASSET) program aims to improve the work-related social skills for young adults with disabilities. Research has indicated the program has positive effects on participant social skills and abilities, self-efficacy, and psychological wellness immediately after program completion.
- JobTIPS, an online employment training platform, allows users to asynchronously learn about transitioning to the workforce and improving employability skills. In one study, participants who used the JobTIPS program in conjunction with a virtual reality interviewing practice demonstrated significant improvements in appropriate verbal responses when interviewing for jobs. However, the improvements in body language that accompanied the verbal responses were not observed.

Overall, this literature review presented an overview of contemporary research on workforce development for adults with disabilities. Understanding the research on instructional approaches and recommended content coverage may assist UWA in determining alignment with their current programming. Although environmental and systemic factors cannot be ignored, teaching employability skills is one mechanism for promoting successful, competitive employment for adults with disabilities.

REFERENCES

- Agran, M., Hughes, C., Thoma, C. A., & Scott, L. A. (2016). Employment social skills: What skills are really valued? *Career Development and Transition for Exceptional Individuals*, 39(2), 111–120.
- Ali, M., Schur, L., & Blanck, P. (2011). What types of jobs do people with disabilities want? *Journal of Occupational Rehabilitation*, 21(2), 199–210. <https://doi.org/10.1007/s10926-010-9266-0>
- Amalky, H. A. (2020). Employment outcomes for individuals with intellectual and developmental disabilities: A literature review. *Children and Youth Services Review*, 109. <https://doi.org/10.1016/j.childyouth.2019.104656>
- Anderson, A., Moore, D. W., Rausa, V. C., Finkelstein, S., Pearl, S. & Stevenson, M. (2017). A systematic review of interventions for adults with autism spectrum disorder to promote employment. *Review Journal of Autism and Developmental Disorders*, 4, 26-38. <https://doi.org/10.1007/s40489-016-0094-9>
- Anderson, K. A., Sosnowy, C., Kuo, A. A., & Shattuck, P. T. (2018). Transition of individuals with autism to adulthood: A review of qualitative studies. *Pediatrics*, 141(4), 318-327. <https://doi.org/10.1542/peds.2016-4300I>
- Baer, D. M., Peterson, R. F., & Sherman, J. A. (1967). The development of imitation by reinforcing behavioral similarity to a model. *Journal of the Experimental Analysis of Behavior*, 10, 405–416. doi:10.1901/jeab.1967.10-405.
- Baldwin, S., Costley, D., & Warren, A. (2014). Employment activities and experiences of adults

- with high-functioning autism and Asperger's disorder. *Journal of Autism and Developmental Disorders*, 44(10), 2440-2449. <https://doi.org/10.1007/s10803-014-2112-Z>
- Banda, D. R., Dogoe, M. S., & Matuszny, R. M. (2011). Review of video prompting studies with persons with developmental disabilities. *Education and Training in Autism and Developmental Disabilities*, 46(4), 514–527. <https://www.jstor.org/stable/24232363>
- Barczak, M. A., & Cannella-Malone, H. I. (2021). Self-management of vocational skills for people with significant intellectual disabilities: A systematic review. *Journal of Intellectual Disabilities*, 26(2), 470-490. <https://doi.org/10.1177/1744629520987768>
- Birri, N. L., Dymond, S. K., & Rooney-Kron, M. (2022). Systematic review of interventions for teaching individuals with severe disabilities workplace social skills. *Education and Training in Autism and Developmental Disabilities*, 57(4), 371-391.
- Blustein, D. L. (2008). The role of work in psychological health and well-being: A conceptual, historical, and public policy perspective. *American Psychologist*, 63(4), 228. <https://doi.org/10.1037/0003-066X.63.4.228>
- Borradaile, K., Martinez, A., Schochet, P., Walsh, E., and Robles, S. (2021). *Adult education strategies: Identifying and building evidence of effectiveness*, (NCEE 2021-007A). Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Washington, DC: U.S.
- Carter, E. W., & Wehby, J. H. (2003). Job performance of transition-age youth with emotional and behavioral disorders. *Exceptional Children*, 69, 449–465. <https://doi.org/10.1177/001440290306900404>
- CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>
- Clark K. A., Test D. W., & Konrad M. (2019). Teaching soft skills to students with disabilities with UPGRADE your performance instruction. *Education and Training in Autism and Developmental Disabilities*, 54, 41-56.
- Connor, A., Dizdarevic, S., Gonzalez, I., Knece, Z., & Koedam, H. (2021). Hybrid versus face-to-face delivery of group soft-skills training for young adults with high-functioning autism. *INSPIRE Abstracts*, 75(2). <https://doi.org/10.5014/ajot.2021.75S2-RP345>
- Connor, A., Sung, C., Strain, A., Zeng, S., & Fabrizi, S. (2020). Building skills, confidence, and wellness: Psychosocial effects of soft skills training for young adults with autism. *Journal of Autism and Developmental Disorders*, 50, 2064-2076. <https://doi.org/10.1007/s10803-019-03962-w>
- Coñoman, G. I., Ávila, V., & Carmona, C. (2024). Initiatives to support the school-to-work transition of people with intellectual disabilities: a systematic review. *Journal of Intellectual and Developmental Disability*. <https://doi.org/103109/13668250.2024.2317799>
- Davis, M. T., Cumming, I. K., Park, N. M., & Sheperis, C. J. (2021). Project SEARCH: Analysis

- of employment outcomes for students with disabilities across two districts. *Special Education Faculty Publications*, 15.
- Ellenkamp, J. J. H., Brouwers, E. P. M., Embregts, P. J. C. M., Joosen, M., van Weeghel, J. (2016). Work environment-related factors in obtaining and maintaining work in a competitive employment setting for employees with intellectual disabilities: A systematic review. *Journal of Occupational Rehabilitation*, 26(1), 56-69. <https://doi.org/10.1007/s10926-015-9586-1>
- Fidler, D. J., Van Deusen, K., Pinks, M. E., Walsh, M. M., Hepburn, S., Riggs, N. R., Daunhauer, L. A., & Graham, J. E. (2022). Post-secondary career and technical opportunities for adults with intellectual and developmental disabilities. *International Review of Research in Developmental Disabilities*, 63, 103-129.
- Fusar-Poli, P., & Radua, J. (2018). Ten simple rules for conducting umbrella reviews. *Evidence-Based Mental Health*, 21(3), 95–100. <https://doi.org/10.1136/ebmental-2018-300014>
- Gilson, C. B., Carter, E. W., & Biggs, E. E. (2017). Systematic review of instructional methods to teach employment skills to secondary students with intellectual and developmental disabilities. *Research and Practice for Persons with Severe Disabilities*, 42, 1–19. <https://doi.org/10.1177/1540796917698831>
- Gilson, C. B., & Carter, E. W. (2018). Video-based instruction to promote employment-related social behaviors for high school students with intellectual disability. *Inclusion*, 6, 175–193. <https://doi.org/10.1352/2326-6988-6.3.175>
- Gilson, C. B., Whirley, M. L., Carter, E. W., & Schutz, M. A. (2022). Teaching employment skills to people with intellectual and developmental disability. In J. L. Matson & P. Sturmey (Eds.), *Handbook of autism and pervasive developmental disorder* (pp. 1559-1579). Springer. https://doi.org/10.1008/978-3-030-88538-0_69
- González, C., & Marhuenda-Fluixá, F. (2021). Programs' efficacy to develop employable skills for people with functional diversity: A meta-analysis. *International Journal for Research in Vocational Education and Training*, 8(3), 300–333. <https://doi.org/10.13152/IJRVET.8.3.3>
- Hamadyk, J., & Zeidenberg, M. (2018). Des Moines Area Community College Workforce Training Academy Connect Program: Implementation and early impact report (OPRE Report No. 2018-82). Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation.
- Ju, S., Zhang, D., & Pacha, J. (2012). Employability skills valued by employers as important for entry-level employees with and without disabilities. *Career Development and Transition for Exceptional Individuals*, 35(1), 29–38.
- Lee, G. K., Chun, J., Hama, H., & Carter, E. W. (2018). Review of transition and vocational interventions for youth and adults with autism spectrum disorder. *Review Journal of*

- Autism and Developmental Disorders*, 5, 268-284. <https://doi.org/10.1007/s40489-018-0138-4>
- Lee, C. E., & Taylor, J. L. (2021). A review of the benefits and barriers to postsecondary education for students with intellectual and developmental disabilities. *Journal of Special Education*, 55(4), 234-245.
- Lindsay, S. Adams, T., Sanford, R., McDougall, C., Kingsnorth, S., & Menna-Dack, D. (2014). Employers' and employment counselors' perceptions of desirable skills for entry-level positions for adolescents: How does it differ for youth with disabilities? *Disability and Society*, 29(6), 953-967. <https://doi.org/10.1080/09687599.2013.874330>
- Munandar, V. D., Morningstar, M. E., & Carlson, S. R. (2020). A systematic literature review of video-based interventions to improve integrated competitive employment skills among youth and adults with autism spectrum disorder. *Journal of Vocational Rehabilitation*, 53, 29-41. <https://doi.org/10.3233/JVR-201083>
- Scott, M., Jacob, A., Hendrie, D., Parsons, R., Girdler, S., Falkmer, T., & Falkmer, M. (2017). Employer's perception of the costs and the benefits of hiring individuals with autism spectrum disorder in open employment in Australia. *PLoS One*, 12(5), <https://doi.org/10.1371/journal.pone.0177607>
- 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, 479-494. <https://doi.org/10.1007/s10882-016-9479-z>
- Strickland, D.C., Coles, C.D., Southern, L.B. (2013). JobTIPS: A transition to employment program for individuals with Autism Spectrum Disorders. *The Journal of Autism and Developmental Disorders*, 43(10), 2472-2483.
- Sung, C., Sánchez, J., Kuo, H.-J., Wang, C. C., & Leahy, M. J. (2015). Gender differences in vocational rehabilitation service predictors of successful competitive employment for transition-aged individuals with autism. *Journal of Autism and Developmental Disorders*, 45 (10), 3204-3218. <https://doi.org/10.1007/s10803-015-2480-z>
- Sung, C., Connor, A., Chen, J., Lin, C-C., Kuo, H-J., & Chun, J. (2019). Development, feasibility, and preliminary efficacy of an employment-related social skills intervention for young adults with high-functioning autism. *Autism*, 23(6), 1542-1553. <https://doi.org/10.1177/1362361318801345>
- Tincani, M., Ji, H., Upthegrove, M., Garrison, E., West, M., Hantula, D., Vucetic, S., & Dragut, E. (2023). Vocational interventions for individuals with ASD: Umbrella review. *Review Journal of Autism and Developmental Disorders*, <https://doi.org/10.1007/s40489-023-00368-4>
- Walsh, L., Lydon, S., & Healy, O. (2014). Employment and vocational skills among individuals with autism spectrum disorder: predictors, impact, and interventions. *Review Journal of Autism and Developmental Disorders*, 1, 266-275. <https://doi.org/10.1007/s40489-014-0024-7>
- Wehman, P. Taylor, J., Brooke, V., Avellone, L., Whittenburg, H., Ham, W., Molinelli Brooke,

A., & Carr, S. (2018). Toward competitive employment for persons with intellectual disabilities: What progress have we made and where do we need to go. *Research and Practice for Persons with Severe Disabilities*, 43(3), 131-144.

<https://doi.org/10.1177/1540796918777730>

Wissel, S., Shenk, M. & Rice, M. (2022). *Programs, models, and strategies to support employment outcomes of young adults on the autism spectrum: A review of the literature*.

Center for Studying Disability Policy. Mathematica, Inc.

Workforce Innovation and Opportunity Act of 2014, PL 113-128, STAT. 1634