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## USE OF ASSISTIVE TECHNOLOGY IN ACHIEVING COMPETITIVE INTEGRATED EMPLOYMENT

Have you ever used the alarm on your iPhone, the timer on your watch, or a checklist posted to a clipboard to help you complete your job? If the answer is yes, then you have experience using support devices that assist with the completion of your job duties. For a job seeker or an employee with a significant disability, these assistive technology devices can be vital to obtaining employment or improving daily work performance. Assistive technology (AT) helps bridge the gap between an individual's abilities and the employer's job requirements. Many employment challenges can be overcome or eliminated by using AT in combination with other types of workplace supports.

Many people with significant disabilities are in facility-based employment programs when they could work in competitive integrated employment (CIE) if they had the correct types of support, such as AT. The underutilization of AT to facilitate CIE is the result of several critical issues, including a lack of information on available technology, lack of coordination across services, lack of training for job seekers, families, and professionals on how to use devices, a lack of coordination in the evaluation and selection of appropriate types of AT, as well as lack of funding for AT. This fact sheet will provide some general information about AT and provide resources that can be accessed for more information.

### Definition of AT

The most frequently quoted definition of AT comes from the Technology-Related Assistance of Individuals with Disabilities Act of 1988, which was reauthorized in 1993, 1998, and most recently in 2004. In 1998, the Act was renamed the Assistive Technology Act.

This law defines AT as: "any item, piece of equipment, or product system, whether acquired commercially or off the shelf, modified or customized, that increases, maintains or improves functional capabilities of individuals with disabilities." This definition has been used consistently across legislation, including in the Americans with Disabilities Act (ADA) and the Workforce Innovation and Opportunities Act (WIOA) of 2014.

## Low and High Tech

AT is considered either "low or high tech" depending on the complexity of the devices, and the materials used to produce them. Low technology devices usually are inexpensive and easy to make or purchase. Consider the following examples.

*A job seeker who has difficulty remembering a sequence of job duties can; a). use a simple paper and pencil checklist, b). use the notes application in an iPhone to write out job duties, or c). make a slide deck of photos with each job duty in order of completion on a lap top. In another example, an individual with limited coordination may use a key guard over a computer keyboard to support striking the correct key.*

The materials needed to fabricate a low-tech solution can be found at many generic merchandise stores (e.g., hardware, home improvement, or computer stores) or ordered from catalogues. The cost will typically be less from these sources than if purchased through specialized vendors. Modifying purchased items can also produce low-tech solutions. Identifying or creating a low-tech solution does not necessarily require that a person has specialized training. In addition, low-tech solutions are relatively easy for an individual with a disability to use on-the-job.

*For example, a stapler could be mounted on a base with a paper guide so that an individual who uses only one hand can staple papers.*

High technology devices are characterized using electronics, special manufacturing techniques, and materials. Typically, high technology is obtained through specialized vendors and requires AT services such as a rehabilitation engineer, rehabilitation counselor, occupational, physical, or speech therapist to acquire and put into place for the individual who requires the accommodation.

## Getting Started

When supporting a job seeker with a significant disability in securing CIE, the best place to start is always with the identification of the individual's career goals and interests. It may be difficult, if not impossible, to identify AT devices without knowing what the person wants to do for work. Determining an individual's technology needs prior to knowing the person's interests can result in the purchasing of AT or skill training in the use of a device that does not translate into a specific job. In other words, the individual may waste time learning to use an AT device as a prerequisite to employment that is not compatible with the negotiated job duties of where they ultimately become employed.

*For example, imagine that a young man learns to use a specialized software program to access a computer keyboard in anticipation of becoming employed. However, when he gets to his job, the software program he spent time learning is not compatible with the company's database. The time and money invested in that training prior to his employment was ultimately useless toward helping him in his current job.*

The identification of assistive devices prior to employment should only be considered if the device increases the person's functional capacity in any environment. In other words, the purchase of AT should match a functional need that an individual has rather than requiring that devices be identified as a prerequisite to employment.

*For instance, a person in a facility-based program may want to learn how to access a computer using AT if the activity has an immediate functional purpose such as online banking, keeping a personal journal, or accessing computer games for leisure and recreation purposes.*

Obviously, increased independence is a goal and should be facilitated for any task or activity and within any environment in which the person lives, works, and plays. However, requiring that a person learn to use AT as a prerequisite to a job search is contrary to the concept of customizing and negotiating a job based on the individual's interest and preferences.

## **Job Search and AT**

While learning to use devices should not be a prerequisite to employment, the identification of AT that a person already uses can be very helpful. The employment specialist will want to determine if the job seeker already uses AT devices to complete functional activities. This information can be obtained through informal interviews, during person-centered planning meetings, through the Discovery process, or while conducting observations.

*For instance, an individual who uses a mouth stick and speakerphone at home may be able to do the same in a business environment. A person who uses a head pointer to type letters to friends may be able to do the same to type on a computer keyboard for data entry. A person who has motor skill challenges and uses dictation technology to communicate with family and friends may be able to easily use the same technology in a workplace.*

Again, the intent is to identify any currently used devices that could be used on the job prior to making a job match. Then, job specific AT identification and selection should begin during the job negotiation and customization process. A word of caution

should be inserted here regarding allowing the technology a person uses to "drive" the job search process rather than the interests of the individual. The individual's interests, strengths, and skills should always be the first and foremost factors guiding the employment process.

### **Ensuring a Good Match**

Asking questions and conducting informal observations can provide a wealth of information regarding the individual's abilities and support needs. Ideally, interviews and observations should take place in a setting of the job seeker's choice while completing an activity selected by the individual. Functional activities for observation may include going out to dinner, going shopping, going for a walk in the individual's neighborhood or park, or attending a community event. Using an activity selected by the job seeker with a significant disability can provide insight into his or her interests and abilities. The employment specialist can evaluate if the individual is able to select an activity of interest, set up and arrange a way to get to the location, move about in the community safely, use public or private transportation, and so forth. All of the information gained will prove important in the ultimate job match.

If the individual chooses to go out to eat, the employment specialist can learn a great deal about his or her potential needs in the workplace. For instance, the employment specialist will learn if the individual can wait in line, order from a menu, interact with restaurant wait staff, use an unfamiliar restroom, or pay for a meal. Watching an individual complete all of these routine tasks in a novel setting will provide insight into the individual's functional abilities. Then, information gleaned from these observations can inform about what types and how much AT the individual may need on a job site.

### **Selecting AT for the Job**

Employment specialists who work with individuals with developmental disabilities and physical/ sensory disabilities often become very good at identifying and making low tech devices.

*Examples include extending the legs on a table so that the person who uses a power chair can access a computer workstation or purchasing a typing stand to make it easier to manage data entry tasks.*

A source for low technology solutions may be a carpenter, a "handy" parent or friend, a church volunteer, or perhaps the local high school's vocational tech department. In addition, the local school system may have therapists who are knowledgeable in AT

who can provide advice. Establishing a relationship with these individuals may prove invaluable when customizing community jobs.

In some situations, the advice of a trained professional will be required. An agency will want the support of a professional who provides AT services such as a rehabilitation engineer or occupational, physical, and / or speech therapist. If a relationship is established with a rehabilitation engineer for instance, he or she may be able to observe the person with a disability at their job and then create an individualized modification. These AT services can be funded through vocational rehabilitation.

*Consider the example of a young woman with a cognitive disability and cerebral palsy who was hired in the credit department of a bank. Part of her job was to open the mail and remove credit card payments. However, she was unable to open the envelopes without ripping the enclosed checks. A rehabilitation engineer fabricated a device from lightweight aluminum that she was able to use to open the envelopes.*

## **Cost of AT**

AT solutions might cost less that you think. The Job Accommodation Network (JAN) surveyed 3,528 employers between January 1, 2019, and December 31, 2022 with 720 employer respondents reporting the cost of accommodations. Approximately half (49.9%) reported that accommodations cost nothing (\$0). Another 43.3% of surveyed employers reported that accommodations resulted in a one-time cost, while the remaining 7.2% of accommodations made resulted in ongoing costs to the employer. For the group of employers who incurred the one-time cost, their medium expenditure was \$300 ( $n=289$ ). You can learn more at:

<http://askjan.org/media/costandbenefitsofaccomodations.html>

Accommodations that didn't cost the employer anything included simply rearranging the environment to make a workplace accessible. Low technology solutions tend to be less expensive, while the cost of high technology solutions can be very expensive. JAN is a free consulting service designed to increase the employability of people with disabilities by 1) providing individualized worksite accommodations solutions, 2) providing technical assistance regarding the ADA and other disability related legislation, and 3) educating callers about self-employment options. JAN is funded by the Office of Disability Employment Policy (ODEP) of the U.S. Department of Labor.

JAN can be reached at:

- 800-526-7234 (voice) and 877-781-9403 (TTY)
- Live Employer Chat at [chat.askjan.org](http://chat.askjan.org)
- e-mail [jan@jan.wvu.edu](mailto:jan@jan.wvu.edu).

JAN also provides a Searchable Online Accommodation Resource (SOAR) system that users can access to explore various accommodation options for people with disabilities in work settings <http://www.jan.wvu.edu/soar/>. Employers may access these services as well as individuals with disabilities, their advocates / personal representatives, family members and other professionals.

### **Employers Responsibility to Pay for AT**

Small businesses with 15 or fewer employees are not required to pay for accommodations under the Americans with Disabilities Act. Companies with more than 15 employees may be required to provide and pay for a reasonable accommodation to a qualified applicant or worker unless undue hardship would result. The ADA defines reasonable accommodation as efforts that may include, among other adjustments; making the workplace accessible, restructuring a job to best use a person's skills, modifying work schedules, modifying equipment, adjusting training materials or policies, and providing qualified readers or interpreters [ADA, Sec. 101 (9) (A, B)]. The type of accommodation provided is determined on a case-by-case basis and depends upon the person's needs and possible solutions.

Most employers will work collaboratively with people with disabilities to resolve accommodation needs. However, if an employer is not meeting its duty of providing a reasonable accommodation, there are several places to go for assistance. The United States Department of Justice (DOJ) and the Equal Employment Opportunity Commission (EEOC) provide more information on the ADA. Publications are available to download at <http://www.ada.gov/>.

There are two tax incentives for employers to make accommodations and these tax incentives can reduce their federal taxes in the year that the expenses are incurred. One incentive is a tax credit that is subtracted from the business' tax liability after taxes are calculated. The other is a tax deduction that is subtracted as part of determining the business' tax liability. For more information, request IRS Publication 334, Tax Guide for Small Business, and Form 8826, Disabled Access Credit, or access these publications on the IRS web site at <http://www.IRS.gov>. Businesses should consult with their accountants or a representative of an IRS office to ensure that all requirements are being met and that the correct tax form is submitted.

## Funding Support for AT

There are a number of public and private options for funding AT services and devices. These potential resources include State grants, loan funds, state vocational rehabilitation agencies, Social Security Work Incentives, Medicaid, private insurance; and other charitable sources such as foundations. Each of these options has specific requirements and guidelines that must be followed in order to access funds for the purchase of AT services and devices. Funding technology does not have to all come from one source. Funding tips are available online from JAN at [askjan.org](http://askjan.org) and West Virginia AT System at [wvats.cedwvu/funding-guides-php](http://wvats.cedwvu/funding-guides-php).

### Additional Resources:

- ADA Home Page: <http://www.ada.gov>
- Disability Rights Section Home Page: <http://www.justice.gov/crt/>
- Job Accommodation Network Homepage: <http://www.askjan.org>
- U.S. Equal Employment Opportunity Commission: <http://www.eeoc.gov/>