Assistive Technology as Reasonable Accommodations

Helping Employees with Disabilities Find, Obtain, Maintain, and Advance at Work

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Your Presenter Today
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Today’s Objectives
Attendees will be able to
• define AT devices and services
• list 3 examples of AT solutions that represent a range of cost and complexity for 2 functional needs
• describe “reasonable accommodations” for at least 3 employment scenarios
• Identify AT Act program resources for learning about, trying, and acquiring AT for employment

Meet Andrew

• https://www.youtube.com/watch?v=-3jjGvUWEMQ&feature=youtu.be
What Is Assistive Technology?

• Devices
  – “any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities” (AT Act of 1998, as amended)

• Services
  – "any services that directly assist an individual with a disability in the selection, acquisition, or use of an assistive technology device" (AT Act of 1998, as amended)

The Technology Pyramid

- High
- Mid
- Low
Assistive Technology Devices

• **Low Tech Devices**: Inexpensive, easily made, easy to learn, readily available, easy to replace and maintain.

Assistive Technology Devices

• **Mid**: May cost more, require some training, may be specially designed, requires power source

Large button phone
Assistive Technology Devices

- **High**: Higher cost, need specific training to learn, often customized

  - [Image: Smart Phone with “apps”]
  - [Image: Refreshable braille display]
  - [Image: Eye-gaze computer access]

Where is Assistive Technology?

- Low, mid and high tech devices can be found at:
  - Generic retail stores (Home Depot, Staples, Apple store, Best Buy and, of course, on-line!)
  - Generic discount stores (Dollar Tree; Walmart; 5 Below)
  - Specialized vendors (Maxi-Aids, Infogrip, Dynavox)
Where is Assistive Technology?

• Devices can be customized by:
  – Assistive Technology Practitioners
  – Occupational therapists
  – Physical therapists
  – Rehabilitation engineers
  – Speech language pathologists

Where is Assistive Technology?

• Some of the best assistive technology has been developed by users themselves, family member and professionals who saw a need, developed a tool and helped someone complete a task!
• Maker movement gaining momentum – fabricating timely and less expensive alternatives to commercial solutions!
Barriers to AT Use

- Attitudes ("too disabled to benefit")
- Thinking AT is all ‘high tech’ (therefore people with cognitive/intellectual disabilities can’t learn to use)
- Funding (no one will pay for that; AT is too expensive)
- Lack of knowledge/availability of AT solutions
- Failure to “consider” AT
- Other barriers?

Assistive Technology Services

- Evaluation

- Selection of the appropriate equipment

- Coordinate with service providers (therapists, engineers, personal assistants)

- Training / Technical assistance for the person and supporting individuals
Selecting AT

- Function, function, function!
- Person + Environment + Tasks + Tools
- TEAM: individual with a disability, support staff, family members, employers, relevant service providers (e.g. VR; OT)
- Consider solutions; make a decision (demos and loans can help); procure devices and services

How do I decide what assistive technology is needed?

Requires consideration of the:

**PERSON + ENVIRONMENT + TASK**

What activity does the person want to do?
What skills are needed to do the activity?
What skills does the person have to do activity?
What supports exist to help learn a new way?
Where is this activity done and under what conditions?
Assistive Technology Devices and Services: Reasonable Accommodations

Reasonable Accommodations

• Job accommodations
• Modifications or adjustments to job functions, work environments, or “the way things usually are done” so that an individual with a disability gets an equal employment opportunity.
• Employers with 15 or more employees.
Reasonable Accommodations

Enable a person with a disability to:
- Participate equally in the job application process
- Perform “essential functions” of the job
  - Fundamental job duties
  - Job descriptions are key
- Enjoy equal benefits and privileges of employment

Reasonable Accommodations

- Reasonable accommodations need not be the “best” or “ideal” but need only be “effective.”
- The employer does not have to provide an accommodation primarily for personal use.
- Accommodations should assist in performing essential job functions.
Undue Hardship

- A particular accommodation may not be required if it would cause “significant difficulty or expense” by the employer.
- Undue hardship is any accommodation that would be unduly costly, extensive, substantial, or disruptive, or that would fundamentally alter the nature of the business.
- Another effective accommodation should be sought and implemented, however.

Ways to Provide Reasonable Accommodations

- Strategies
- Personal assistance
- Assistive technology
The Cost of Assistive Technology Accommodations

- The employer is responsible to provide accommodations (may include evaluation to identify those needed) for the application process or the job itself
- Based on almost 1200 interviews of employers (JAN): 46% accommodations cost $0.00; 45% one-time cost; median one time expenditure $500.

Who can help?

- Federal and state tax credits and deductions for employers, e.g. IRS Publication 3966: Tax Benefits & Credits
- State office/department for vocational rehabilitation
- Private insurers (health; disability; workers comp)
- State AT Act program
What’s the Payoff for Employers?

• An increased pool of qualified and talented employees

• Keep qualified and trained employees as “disabilities” surface from age or injury

• Help create opportunities for individuals with disabilities

What’s the Payoff for Employees?

• Helps employees return to work after an accident or illness

• Retains aging workforce (e.g. employees who develop macular degeneration)

• Creates opportunities for employment and/or promotion

• Helps employees perform work more easily and to their potential
Assistive Technology:

A glimpse of what is available

Vision
Hearing

Personal FM system

Conference microphone

Writing

On-Screen Keyboard
Mice

- Ergonomic Mice
- Joysticks
- Rollerballs
- Small Mice
- Specialist Mice
- Wireless Mice

Tools: Task - Organization

- Reminder systems (post-its; timers and watches; alarms and signalers)
- Calendars and electronic scheduling tools
- Lots of apps! (e.g. Evernote; search “apps for organizing” for lots of ideas).
Workstation Setup

Work surface:

- Desk surface should allow you to place the monitor directly in front of you, at least 20 inches away.
- Avoid storing items, such as a CPU, under desks.
- Desks should be able to accommodate a variety of working postures.
Desks / Workstations

- Sit/Stand Adjustable Desks
- Height Adjustable Desk with Hand Crank
- Motorized Height Adjustable Desk

What Is Universal Design?

- *Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.*
  – Ron Mace

- Products developed using universal design principles
  – have built-in flexibility and compatibility with respect to specific environments and contexts; and
  – offer more choices for everyone.
Universal Design

• Everyone can benefit
  – Examples:
    • An accommodation for one employee on a conveyor belt / assembly line will speed up the productivity of everyone on that line.
    • The new technique developed for the person with a disability in a factory setting may be more efficient than the traditional way.

Universal Design

Automatic Doors

• Allows easy entry and exit
• Benefits everyone
• Provide accessible access – no button to find or push
Universal Design

Box Cutter

- Designed to help someone who needs better grip
- May help reduce risk for repetitive stress injuries in most employees
- Is safer to use for everyone

“Built In” Accessibility

- iOS – computer, phones, tablets “guided access”
- Android – phones, tablets
- Examples: speech to text, text to speech, font size, contrast, background color, keyboard commands, sounds, sticky keys; captioning add-ons
AT in Your Workplace

• Is there Assistive Technology in your office that you didn’t realize you had before?

Scenarios: AT at Work

Challenge: Marvin is a greenhouse worker who has difficulty staying on task. He often forgets to do one or more of the tasks he is supposed to complete.

Solutions:

Strategy: Reduce number of tasks.
Assistance from another person: Job coach for initial training
Assistive technology: Smartphone app with audio periodic reminders; laminated cards with list of tasks and check sheet. Job coach develops cards and check sheet and teaches use of these; customizes app.
Scenarios: AT at Work

Challenge: Lee can’t tell time. His supervisor at WalMart was upset because Lee often returned late from his break.

Solution(s):
Strategy: Watch other co-workers who are on break at that same time; return when they do.
Assistance from another person: Ask co-worker to let him know when the 15 minutes is up. Ask friend to call him at a set time.
Assistive Technology: Set timer (free standing; watch; or smartphone app).

Scenarios: AT at Work

Challenge: Celeste, bookkeeper for a mid-size company, is losing her vision due to macular degeneration. It is difficult to see the calculator and computer screen, and to read receipts when she reconciles employee’s travel.

Solution(s):
Strategy: Staff must enlarge receipts (on the copy machine) prior to submitting.
Assistance from another person: Assign a volunteer to read for her.
Assistive Technology: Adjust “built in” accessibility settings for text-to-speech, font size, contrast; large key calculator with voice output; evaluate for magnification programs or stand-alone magnifier; augment work station lighting.
Solutions to Challenges at Work

• What are solutions that work for you?

• Can you come up with ideas with the other participants?

• Brainstorming is a valuable tool!

Scenarios: AT at Work

Challenge: Darius can’t remember to put on all parts of his Shoprite uniform (shirt, name badge, visor) when dressing for work.

Solution(s):
Strategy:
Assistance from another person:
Assistive Technology:
Scenarios: AT at Work

Challenge:
Cara enjoys her job as an assistant in Lorna’s Day Care Center. She can’t read, but she would like to conduct story time with her group of 3 year-olds, like the other classroom assistants do.

Solution(s):
Strategy:
Assistance from another person:
Assistive Technology:

Scenarios: AT at Work

Challenge:
Although his supervisor sends out an agenda prior to all staff meetings, Bob has been coming to meetings unprepared because he cannot read the agenda.

Solution(s):
Strategy:
Assistance from another person:
Assistive Technology:
Scenarios: AT at Work

Challenge: Ricky’s office, like those of his co-workers, consists of “cubicles”. Noise from other conversations distracts him and he loses his place. As a result of having to start over, his productivity is low (and has many errors).

Solution(s):
Strategy:
Assistance from another person:
Assistive Technology:

Scenarios: AT at Work

Challenge: Robin is training to be a “barista” in a downtown coffee shop. She has difficulty getting the recipes right for some of the more complex beverages.

Solution(s):
Strategy:
Assistance from another person:
Assistive Technology:
How do I find Assistive Technology for a Job Accommodation?

- Rehabilitation Specialists, Occupational Therapists, Vocational Counselors
- Your state AT Act Program: https://www.at3center.net/stateprogram
- Online search, local stores - ask the person who needs it!

State AT Act programs

- Demonstration
- Short-term equipment loans
- Reuse programs
- “State Financing” including low interest cash loans; equipment distribution programs; lease/rental
- Information and assistance
- Training and technical assistance
Job Accommodation Network (JAN)

http://askjan.org: Contact JAN for free consultation on specific employment issues; treasure trove of information and videos on frequently encountered topics/issues from interview to post-accommodation satisfaction

https://askjan.org/soar.cfm: Searchable database of suggested accommodations by disability, function, and “limitations”
Responsibilities: Employer

• Key Team member in:
  – Developing job accommodations strategies
  – Implementing reasonable accommodations
  – Providing funding and / or in-kind support
  – Understanding essential job functions
  – Authorizing sick or administrative leave for assessments and training

Responsibilities: Employee

• Submits written request for reasonable accommodations to employer
• Assists in obtaining supplementary referral information
• Actively participates in clinical assessments and team meetings
• Participates, if applicable, in cost of devices/services