

Assistive Technology Assessment Process

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The purpose of an assistive technology assessment is to match the capabilities and needs of an individual to the characteristics of an assistive technology device or service. Identification of appropriate technology interventions can be achieved through the implementation of a logical, systematic decision-making approach guided by certain fundamental principles.

Technology itself is not the goal . . .
the individual's participation in their
chosen activities is the goal.

Assistive Technology (AT) Principles

- * Assistive technology is a process not a product.
- * Assistive technology is a team process.
- * Assistive technology is a system of devices and services.
- * Assistive technology requires new skills.
- * Assistive technology is a step towards independence.

Steps of the AT Assessment Process

1. Identify the Individual's Tasks to be Accomplished
2. Gather Background Information
3. Match the Individual With Equipment Features
4. Equipment Considerations
5. Establish Trial Use of Equipment
6. Reconsider Options
7. Develop Training Plans
8. Identify Funding Sources
9. Define Follow-up Activities

1. Identify the Individual's Tasks to be Accomplished

The first step of the assistive technology process is to identify the task an individual wants or needs to do that is impeded by a disability. Consider the activities the person wants to be involved in throughout their environments, at home, at work, at school, and in the community.

Activities may fall within the areas of:

- * Communication
- * Mobility
- * Independent Living
- * Education
- * Employment

"You can't get the right
answer if you're asking
the wrong question."

- * Recreation

2. Gather Background Information

To gain an understanding of an individual, pertinent background information must be gathered from the individual, family members, and professionals. Information is needed about their functional abilities, personal characteristics, assistive technology experiences, and environments.

Functional Abilities

- * Disability: type, severity, onset, prognosis
- * Motor: strength, endurance, fine and gross, positioning
- * Cognition: intelligence, problem solving, memory
- * Communication: voice quality, speed, pronunciation
- * Sensory: vision, hearing, tactile, perception
- * Education: academic strengths and interests, math, reading, writing
- * Vocational: employment history, interests, aptitude

Personal Characteristics

- * Desire for and concept of independence
- * Interests and activities
- * Coping style
- * Motivation and desire
- * Attitude toward the use of devices

“None of us is as smart as all of us.”
Ken Blanchard

Assistive Technology Experiences

- * Training received
- * Types of equipment
- * Services accessed

Individual's Environment

- * Compatibility in the home, at work, school, play, community
- * Impact on family members, co-workers, others
- * Availability of training and support services

3. Match Individual With Equipment Features

Upon identification of the tasks the individual wishes to accomplish and review of the pertinent background information, it is time to match the individual with the appropriate equipment features. At this point it is important to have someone with expertise in the area of assistive technology to explain the variety of options. To insure the most effective and satisfying equipment selection and to reduce the potential of equipment

abandonment the following questions should be asked:

- * Does the solution have the capabilities to accomplish the identified tasks?
- * Does the solution fit the individual's functional abilities?
- * Does the solution fit the individual's personal characteristics?
- * Does the solution fit the individual's environment?
- * Is the solution as simple as possible?
- * Does the solution consider integration of all assistive technology devices used by the individual?

4. Equipment Considerations

When the equipment features have been identified the next step is to examine potential devices. In addition to the features, the following characteristics should be considered:\

- * Performance: effectiveness, reliability, durability, safety, comfort
- * Ease of Use: set-up, learn to use, operation, maintain, repair
- * Aesthetics: attractive, quiet, well-designed, size
- * Convenient: to use in environments, transport, easy to store
- * Cost: purchase, maintenance, repairs
- * Service: training, installation, follow-up, availability
- * Flexibility: compatible with other devices, expandable
- * Personal acceptance

5. Establish Trial Use of Equipment

It is critical for an individual to have an opportunity to try one or more pieces of equipment before purchasing. Coordinating support services during the trial use is necessary for a successful experience. Trial use requires personnel trained in the use of each device to assist the individual.

This enables the trial use to fairly reflect the equipment and the individual's skills. The length of time for the trial use varies according to the complexity of the device. Regardless of the length of time of the trial period, establishing criteria for the trial is important to ensure that the device:

- * has the capabilities to accomplish the identified tasks
- * fits the individual's functional abilities
- * fits the individual's personal characteristics
- * fits the individual's environment
- * is as simple as possible
- * it is compatible with other assistive technology devices used by the individual

6. Reconsider Options

As a result of the trial use of equipment, necessary adjustments or modifications may have been identified.

Maybe the selected equipment didn't meet the needs as expected or the individual did not accept the device. Therefore, it may be necessary to revisit step 3 "Match the Individual With Equipment Features." To reconsider at this step is good use of time and resources which potentially reduces costs by eliminating purchases which do not meet the individual's needs.

"Be wary of overacting to mistakes. The freedom to risk mistakes is critical to quality improvements."

7. Develop Training Plans

Planning for training to support the device use and implementation is an important step in the assistive technology assessment process. Access to professionals trained in assistive technology is not always available. Therefore, professional training may need to be a part of training plans. Training plans should identify:

- * personnel with expertise to support device use and implementation,
- * training budget,
- * training for the individual, family members, support personnel,
- * responsibilities and time-lines.

8. Identify Funding Source/s

There are a variety of funding sources available to provide for equipment trial use and to purchase devices. Identifying who will coordinate funding activities and establishing time lines will be critical for successful and timely assistive technology funding. Sources to investigate include:

- * Short term equipment loan libraries
- * Rental programs from manufacturers
- * Used equipment sources
- * Third party payers (education, vocational rehabilitation, Medicare, Medicaid, private insurance)
- * Assistive technology alternative financial loan programs
- * Charitable and fraternal organizations

"Success is a journey not a destination."

9. Define Follow-up Activities

Assistive technology is an ongoing process requiring systematic examination of device use and implementation. Examination is necessary to assure meeting the changing

needs of the individual and the evolution of technology. Questions to consider in followup include:

- * Who will coordinate the short and long term follow-up needs, i.e., training, device modification, maintenance, reassessment?
- * How will follow-up be facilitated, i.e., written communication, phone contacts, meetings?
- * What is the time-line for follow-up, i.e., weekly, monthly, annually?

Assistive Technology Assessment Providers

It is important to have qualified person(s) who specialize in evaluation for and training of assistive technology involved in the assessment process. The following questions are recommended to ask of the assistive technology service provider:

- * What type of experience do you have working with assistive technology?
- * In what areas of assistive technology do you conduct assessments and for what ages?
- * What type of training do you have in these areas?
- * Are devices available for use during the actual assessment?
- * Does your assessment include site visits to the individual's environment?
- * If a device is recommended as a result of your assessment, do you provide assistance in obtaining funding?
- * If the device you recommend is purchased, do you provide training or assist with developing a training plan?

CONCLUSION

Utilizing a comprehensive assistive technology assessment process results in successful matches of individuals and assistive technology. The appropriate technology solutions provide opportunities for people with disabilities to:

- * Increase independence at home
- * Maximize employment options
- * Increase access to general education
 - * Increase socialization
 - * Expand recreational options

“Even though the distance between you and your goal is great,
it is never too far to the next step.”



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