

Introduction to AT: Script for PowerPoint

All students can participate! All students can learn! and All students can achieve! This is the mandate of today's educational process. And never before has the message been clearer that ALL includes students with disabilities. The Individuals with Disabilities Education Act (IDEA) is a federally protected civil right for all children with disabilities to have available to them a free appropriate public education that meets their education and related services needs in the least restrictive environment. Coupled with No Child Left Behind, current emphasis must be on each student's participation and progress within the general curriculum. IDEA mandates that the IEP team consider the assistive technology needs for each student with a disability. This consideration requires the team to evaluate the educational barriers that currently restrict the student from accessing and progressing in the general curriculum. Will assistive technology maximize the learning opportunities for this student?

How can assistive technology benefit a student? First of all, technology and assistive technology may provide access to materials and activities that would not otherwise be available to the student. Technology and assistive technology matches the needs and abilities of the student and supports him or her in processes to read write, speak, listen and participate in all aspects of classroom learning. With assistive technology, students may realize a greater sense of independence, participation and productivity, not only at school, but also at home and in the community. IDEA includes a definition of assistive technology that is broad and certainly encompasses a wide range of tools to assist a student.

The definition of assistive technology not only addresses devices, but also includes a description of the services that will support the selection, acquisition and use of these tools for the student with disabilities. It must be remembered that within the mandates of IDEA, assistive technology is not considered only for students with severe disabilities or those within only certain disability categories. When the focus of consideration is on the function or tasks that a student with disabilities needs to do, then it is easy to see applications that may benefit students within a wide range of disabilities at the mild, moderate and severe levels of need.

Assistive Technology is generally described in terms of complexity. Low technology tools are usually low-cost items that are relatively easy to use. Low-tech items are less sophisticated and often people do not realize that these modifications are within the definition of AT. Mid Tech tools include battery operated devices or simple electronic devices; Medium-tech devices include simple mechanical devices. High Tech tools are devices that incorporate sophisticated electronics or computers.

In making decisions about the type of technology tools a particular person might require, a good approach is to start with the no-tech solutions and then work up

the continuum, as needed. Too often, when making technology decisions, there is a tendency to start at the upper end of the technology continuum when, in fact, it is better to start at a lower point. For example, when making decisions about a person whose handwriting is difficult to recognize, it is not uncommon to hear recommendations that a laptop computer should be provided that can be taken to various environments in which written products are required. This may involve a cost between 1000 to 4000 dollars. In reality, an electronic keyboard with memory that can be downloaded into a desktop computer later in the day may be more appropriate at a cost of less than \$250. Although the student in this example may eventually require a laptop computer, the electronic keyboard may be a better place to start. Here we see examples of low tech tools that support a struggling reader. It may be as simple as highlighters and post it notes to enhance reading performance. Items such as books on tape or hand held talking dictionaries require some mechanical operation and thus are considered mid tech tools to support reading. Reading tools that are generated with a computer, such as talking word processing and scanned text would be considered at the high end of assistive technology.

There are increasingly abundant multimedia formats that also can be used to support reading. Whether low or high technology, each of these products is intended to support the reading process for a student so that he or she can reach higher levels of achievement. Simple writing tools can aid the writing process for a student. Other low tech tools for writing may include keyguards and adapted writing paper. Mid tech writing tools include products such as a portable keyboard or a braille note-taker. Computer based software and hardware are available for word prediction, organization and alternate keyboards. Other high technology writing options such as voice recognition, braille embossers and text to speech provide alternative to the writing process. Picture based communication displays provide a low tech means for students to communicate. Recorded messages on mid tech communication tools also give students ways to communicate in specific situations. High tech voice output communication devices enable students who do not have typical speech abilities to generate their own messages by combining pictures or words and by typing text. Communication is a critical part of the academic and social aspects of school. Classroom and personal sound amplification systems enable students with hearing loss to gain auditory information in the classroom. Low tech adaptations for moving and seating provide students with access to the school and classroom environments. Many of the mid tech mobility and positioning tools increase the level of participation in many daily activities. Motorized adaptations, such as a power wheelchair, provide increased independence for a student to move in a variety of settings. The inclusion of mobility and seating technologies are essential for students within their learning environments.

Environmental Control Devices consist of any device which helps a person live in or control the environment around them.

Environmental control devices may include feeding aids, bath aids, and Velcro fasteners on clothes. Architectural modifications, such as ramps, lowered counters, and widened doorways are also part of the environmental control device group. Single switch environmental controls allow a person with even the most severe physical disabilities to run electrical appliances, use a computer, answer the phone, turn the TV and VCR on and off — and the list grows daily with exciting innovations. When an environmental control system interfaces with electronic appliances, an individual with physical limitations can significantly increase the available options for daily activities and life skills. These are just a few of the examples of assistive technology devices that can serve to increase the participation, productivity and independence for a student with a disability. When beginning to consider a student's needs and potential for assistive technology, it is important to identify the task expectations for other students, the barriers for the student with disabilities, and the options that have already been tried. This will assist the educational team in defining the current technologies that might benefit the student.

The team may also need to determine if the suggested AT tool or service is necessary for a student. This question can be answered by determining if the AT will provide a Free Appropriate Public Education for the student, if the student can then be educated in the least restrictive environment, and if it enables the student to have access to the educational activities and programs. When appropriate assistive technologies are provided for a student, the possibilities are endless!