

# Teaching Students with Visual Impairments

As with individuals with other disabilities, it is a challenge to teach those with visual impairments. Fortunately, technology can make the job easier. It can undoubtedly level the playing field and act as an equalizer when it comes to learning of knowledge and skills. To be able to obtain and communicate information, students with blindness or visual impairments may need to acquire several technology skills. The most useful branch of technology that such individuals should be familiar with is assistive technology.

## What is Assistive Technology (AT)?

According to [Individuals with Disabilities Education Act \(IDEA\)](#), *“Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of that device.”*

AT serves the purpose of increasing opportunities for the participation, achievement, and independence for a student with a disability. It not only enhances their access to the curriculum and extracurricular activities but can also play a significant role in improving their academic performance. The teachers should analyze the needs of the particular individual to determine which specific devices, tools, and technologies may be the most useful. The aim is not to provide the disabled individual an unfair advantage. Instead, it is to give them as much independence as possible so that they can compete with their peers.

In this respect, technology can be divided into the following two broad categories:

1. **General technology**, including smartphones, computers, etc.
2. **Assistive technology**, including screen readers for the blind, braille printers, etc.

To make the best use of technology for helping the blind and the visually impaired, their curriculum should include guidance regarding the use and maintenance of assistive devices. These devices can enable these individuals to access and store knowledge from the internet as well as from libraries around the world. Using AT, such students can successfully take notes, study for tests, research, and fulfill other academic tasks.

Thankfully, there are many AT devices available today. They can be categorized into the “low tech” (inexpensive) and “high tech” (expensive).

## Examples of Assistive Technology Which Can Be Used in Teaching

Some of the devices that a teacher can use to teach a student with a partial visual impairment include:

- 1. Visual Aids**

These should have contrasting colors, which makes it easy for visually impaired individuals to differentiate between the shapes of numbers, letters, and figures from their background.

- 2. Magnifiers**

They will make the letters, objects, illustrations, and other shapes bigger to make it possible for the low-vision student to be able to perceive them.

- 3. Specialized Books**

These should have a large font-sized text.

- 4. Screen Enlargers**

These are employed when using a computer. They serve the purpose of enlarging the whole screen or parts of it.

On the other hand, a teacher who is teaching a completely blind person may utilize all or some of the following:

- 1. Brailers / Braillewriters**

This is a special machine that is capable of printing Braille.

- 2. Books on Tape**

Through this audio aid, the blind students can learn the lessons using their sense of hearing.

- 3. Screen Reader**

This tool is particularly useful in an inclusion classroom where a blind student is attempting to learn alongside peers who are not blind. A teacher may employ a discussion of a topic along with visual lessons on a computer screen which the non-blind students can follow easily. In this case, a blind student can follow the lesson using the screen reader. Not only will he or she be able to keep up with the class but can also learn and participate in the discussion, which will help with the overall learning too.

- 4. Tactile Graphics / Thermoform Graphics**

This is an interesting tool that may be utilized with teachers who possess some art skills. They can use a Perkins machine or an embosser to embed Braille on 3D teaching aids.

- 5. Others**

This includes Braille keyboard or notetaker, braille translator software, brailed materials, braille printer/embosser, voice recognition software, and pencil with adaptive grip.

Teachers should not only utilize such technology to make the teaching process easier and more efficient. They should also instruct the blind and visually impaired students on the use of these tools. For example, they can teach them how to use the aids for daily living that promote independent living skills. These include, but are not limited

to adapted eating and drinking devices, aids for grooming and dressing, specialized toilet seats, and cooking tools. This way, those who are suffering from blindness or visual impairment can be made capable of living more accessible, easy, and meaningful lives while reducing their dependency on others.