Professional Certificate in Occupational Therapy in Visual Impairments

Technology and Assistive Devices

Assistive Technology (AT) refers to devices, software, or equipment that help individuals with disabilities perform functions that might otherwise be difficult or impossible. In the context of visual impairments, AT can help individuals with low vision or blindness to access information, communicate, and maintain independence in their daily lives.

Here are some key terms and vocabulary related to Technology and Assistive Devices in the course Professional Certificate in Occupational Therapy in Visual Impairments:

1. Screen Reader: A software program that reads aloud the text that appears on the computer screen. Screen readers can be used by individuals who are blind or have low vision to access computer applications, websites, and documents. Examples of screen readers include JAWS, NVDA, and VoiceOver.
2. Screen Magnification: A software program that enlarges the text and images on the computer screen to make them easier to see. Screen magnification can be used by individuals with low vision to access computer applications, websites, and documents. Examples of screen magnification software include ZoomText, MAGic, and SuperNova.
3. Refreshable Braille Display: A device that displays text in Braille characters. Refreshable Braille displays can be used by individuals who are blind to read electronic documents, emails, and other digital content. Examples of refreshable Braille displays include the HumanWare BrailleNote, the Orbit Reader 20, and the Braille Edge 40.
4. Optical Character Recognition (OCR): A technology that converts printed or written text into digital text that can be read aloud by a screen reader or displayed on a refreshable Braille display. OCR can be used by individuals with visual impairments to access printed materials, such as books, documents, and signs. Examples of OCR software include Adobe Acrobat Pro, ABBYY FineReader, and Kurzweil 3000.
5. Assistive Listening Devices (ALDs): Devices that amplify sound for individuals with hearing loss. ALDs can be used by individuals with visual impairments who also have hearing loss to access auditory information. Examples of ALDs include hearing aids, cochlear implants, and personal amplifiers.
6. talking calculators: Calculators that announce numbers and operations out loud, helping individuals with visual impairments to perform mathematical calculations. Examples of talking calculators include the Algebra Calculator, the Talking Scientific Calculator, and the BrailleNote Touch.
7. Large Print Keyboards: Keyboards with larger keys and high-contrast lettering that make it easier for individuals with low vision to type. Examples of large print keyboards include the Big Keys Keyboard, the Keyboard with Large Keys, and the EZ See Keyboard.
8. Adaptive Switches: Devices that allow individuals with physical disabilities to operate technology using alternative methods, such as touching a button or using a joystick. Adaptive switches can be used by individuals with visual impairments who have physical disabilities to access technology. Examples of

adaptive switches include the Big Red Switch, the Jelly Bean Switch, and the Sip-and-Puff Switch.
9. Alternative Input Devices: Devices that allow individuals to input information into a computer or other technology using methods other than a keyboard or mouse. Alternative input devices can be used by individuals with visual impairments who have physical disabilities or difficulty using a keyboard or mouse. Examples of alternative input devices include speech recognition software, eye-tracking technology, and head-tracking technology.
10. Accessibility Features: Features built into technology that make it easier for individuals with disabilities to use. Accessibility features can include text-to-speech technology, high-contrast display, and keyboard shortcuts. Examples of accessibility features include the accessibility options in Windows and Mac operating systems, the accessibility features in web browsers, and the accessibility features in mobile devices.

Challenges and Practical Applications:

One challenge in using assistive technology for individuals with visual impairments is the cost. Many assistive devices and software programs can be expensive, and not all insurance plans cover the cost. However, there are resources available to help offset the cost, such as grants, scholarships, and government programs.

Another challenge is the learning curve associated with using new technology. Individuals with visual impairments may need training and support to learn how to use assistive devices and software programs effectively. Occupational therapists can play an important role in providing this training and support.

Practical applications of assistive technology for individuals with visual impairments include:

* Accessing digital content, such as emails, documents, and websites, using screen readers or refreshable Braille displays.
* Reading printed materials, such as books, documents, and signs, using OCR technology.
* Participating in online learning and remote work using assistive devices and software programs.
* Communicating with others using ALDs, talking calculators, and other assistive devices.
* Operating technology using alternative input devices, such as speech recognition software, eye-tracking technology, and head-tracking technology.

In conclusion, Technology and Assistive Devices are essential components of the course Professional Certificate in Occupational Therapy in Visual Impairments. Understanding the key terms and vocabulary related to this topic can help occupational therapists to better support individuals with visual impairments in accessing technology and maintaining independence in their daily lives. By providing training and support in using assistive devices and software programs, occupational therapists can help individuals with visual impairments to overcome challenges and achieve their goals.