

Assignment of Inclusive Education

Submitted by: Murkan

Class : B.ed. (2018-20)

Roll no.: 311

Submitted to: Mrs. Shaina
Mam....

Teacher's Signature : _____

Introduction

When you think of the word 'Technology' what comes to mind? It might sound like something from a sci-fi show or something that has to run on electricity. Well, there is slightly more to it than that. Technology usually involves a specific piece of equipment but that equipment can be incredibly simple or dazzlingly complex. But with the advent of assistive technology many educational horizons have opened to children, particularly to those having disabilities.

Concept of Assistive Technology

Meaning: Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain or improve the functional capabilities of persons with disabilities. Assistive technology helps people who have difficulty in speaking, typing, writing, remembering, pointing, seeing, hearing, learning, walking and many other things.

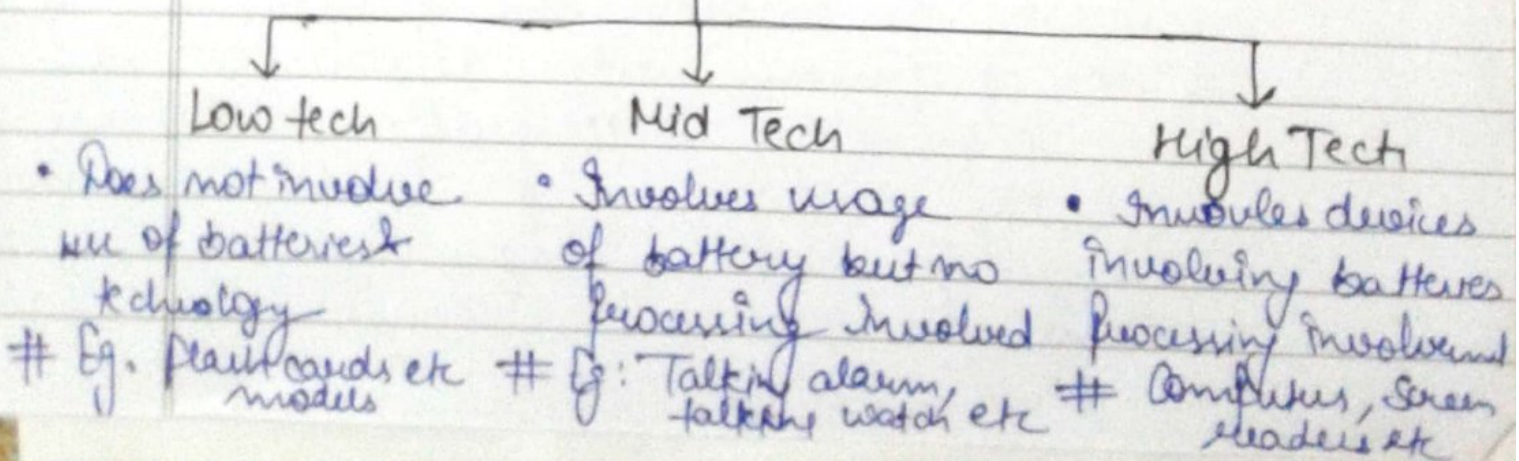
According to World Report on Disability (WHO, 2011), "Assistive technology is defined as any item, piece of equipment, or product, whether it is acquired commercially, modified or customized that is used to increase, maintain or improve the functional capabilities of individuals with disabilities."

In other words, it is any device, instrument, equipment which helps to increase the functioning capacity of persons with disabilities.

Tech Act

It is an act that was designed to enhance the availability and quality of Assistive Technology devices and services to all individuals and their families throughout the United States."

Types of A.T.



Use of AT for Visually Disabled Children...

Visually disabled Children:- Visual impairment also or vision impairment or vision loss is a decreased ability to see to a degree that causes problems not fixable by usual problems means such as glasses. Visual impairment is often defined as a best corrected visual acuity of worse than either 20/40 or 20/50.

Assistive technology for Visually disabled Children:-

for educational needs:-

1. Enlarged text: Students with low vision Enlarged text is very helpful as text information is presented to them.
- # Enlarged upto 18 point to 24 point
- # It is acquired through publisher; Magnified by copy machines.

2. Digital text: Visual aspects of documents and text can be customized and this text can be obtained through numerous resources. It can be obtained from:
 - i) providers of accessible instructional materials
 - ii) created by instructors or students.
 - iii) also from tools like Computers, mobile devices or braille note takers
3. Handheld Magnifiers: These are low tech, portable tools allow students with some vision to access not only text but other objects in their environment as well. Magnification power should be based on recommendations of specialist.
4. Video Magnifier: A video magnifier can be used for other objects as well. It may be in form of handheld device, a stand alone device, or work with a Computer, TV & Projector
5. Audio Books: These are generally recorded using human voice and can be accessed through the use of specialised devices like MP3 player.

Technology for Mobility & Orientation

1. low tech Adaptations in environment:
 - # Sitting arrangement or arrangement of furniture
 - # Proper lighting
 - # Allow them to wear a hat with brim.
 - # Doors or windows or stairs are painted out by use of color contrast
2. Cane : ? It is important tool for students with visual impairment to allow safe & independent travel throughout the environment.
3. Enlarged Braille: This provides visual, tactile or auditory cues related to direction.
4. Electronic Travel Aids: This is use a variety of system include radar, sensor & system to detect barriers & provide feedback through vibration or auditory cues.
5. GPS Sensing devices: Use satellite technology to provide auditory feedback to individuals regarding their position, direction of movement environment & routes.

Use of AT for Intellectually disabled Children...

Intellectually disabled children: - Intellectual disability is a term used when a person has certain limitations in mental functioning & in skills such as communicating, taking care of him or herself and social skills. These limitations will cause a child to learn & develop more slowly than a typical child.

Assistive technology for Intellectually disabled children:-

These children need technology or support in home living, community living, lifelong learning, employment, health & safety, social activities so that they can perform their role independently.

1. Home living: In this such activities like preparing and eating food, taking care of clothes, housekeeping & cleaning, dressing, bathing and personal hygiene &

operating home appliances.

AT supports in this domain are:

- i) Built up handle eating utensils.
- ii) Picture based cookbooks.
- iii) Pictorial task instruction to assist with house-keeping activities. [Video & Audio both]
- iv) Speech generating devices.
- v) Smart phones to use in keeping shopping lists.

ii) Community living: This domain focuses on activities such as using transportation, participation in recreation, shopping & interacting with community.

AT supports in this domain:

- 1) Wheelchair accessible buses.
- 2) Adapted sports.
- 3) Battery controlled Card Shufflers.
- 4) Picture based Email programmes.
- 5) Smart homes to facilitate independent living.
- 6) Computer Cuing systems to guide users to destination.

iii) Life long learning: This domain focuses on interacting with others while making educational decisions, learning strategies, self determining skills etc.

6. Slak and Stylus: It is equal to paper & pencil for individuals who are blind. This simple tool helps for simple tasks like writing notes to themselves.

7. Handheld digital recorder: It helps or allows the students to record lectures, dictate assignments or make notes to self.

8. Word processor: These are highly adaptable. Text size and font can be customised can be used to enhance visual display. The use of adaptive keyboards with high contrast or enlarged keys can be used.

9. Word processor with specialised software: Text-to-speech software can create a "talking word processor" which provides feedback to students about what they have typed, while speech recognition software allows the student to dictate into microphone which computer translates into text.

10. Word processor with Refreshable Braille display: For students with no vision, Refreshable Braille Display can be used in ~~com~~ with word processor which will display

the text tactually allowing students to read and edit their own work.

11. Manual & Electric Braille Writers: It is similar to typewriter and often used for emergent readers & writers
12. Braille Notetaker: It is a portable processing device that utilizes eight key braille input system and has integrated refreshable braille display. This is used to read books, complete assignments & navigate the internet.
13. Braille Embosser: It allows the students to print their completed work in braille format
14. Adaptive Calculators: There is built in supports include large display & large keys, tactile or braille keys & talking calculators
15. Specialised Software: Specialised STEM (Science Technology Engineering math) software is available that provides a variety of support including screen magnification, screen reading, etc

- AT supports in this domain include:-
- 1) Audio books & text supports for reading & listening comprehension.
 - 2) Personal digital assistants.
 - 3) Graphic organizers.
 - 4) Smart boards.
 - 5) Screen Magnifiers.

4) Health and Safety: This domain emphasizes taking medicines, avoiding health & safety hazards, obtaining health care services, maintaining a nutritious diet, maintaining emotional health.

- Examples of AT tools that support this domain:
- 1) Picture Based Cookbooks.
 - 2) Exercise Videos.
 - 3) Walkers.
 - 4) Cell phones with alarm system.
 - 5) Internet based nutritional programme.
 - 6) Life alert watches.