



## Assistant Technology for Children with Disabilities

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### ARTICLE DETAILS

#### Research Paper

#### Article History

Received : September 05, 2023

Accepted : September 20, 2023

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#### Keywords :

Assistant Technology,  
Disabled Children,  
Inclusive Education,

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### ABSTRACT

Assistant technology helps disabled child to adjust with environment. It has improved disabled children's knowledge and skills. It reduces difficulties of children with learning disabilities. Assistive technology makes learning effective for students with disabilities. Assistive technology helps identify students with disabilities. Assistive technologies teach according to their abilities. Assistive technology helps them grow and development. Students with disabilities receive information with the help of assistive technology. Assistive technology makes content easier to convey and especially accessible to students with disabilities. Assistive technology provides more opportunities for children to engage in activities which are important for healthy child development. It has played an important role to increase confidence level of disabled children. Assistant technology helps to overcome obstacles and living independently.

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### Definition of Assistant Technology:

IDEA defines an AT device as "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" Assistant technology changes behaviour of children with disabilities. individuals with disabilities." - IDEA, (cited in Kelker, 1997). Definition of Assistive technology is redefining possibilities for the disabled, by enabling them to be more confident, independent and productive. By facilitating participation and inclusion of PWDs in all facets of life, it can impact self-image, self-esteem and sense of self-worth (Scherer & Glueckauf, 2005). Assistant

technology is helps to increase capacity of disabled students, improve behaviour, living independently, to develop their potential abilities and fulfilled thier needs

### **Characteristics of Assistant technology:**

- 1) Assistant technology helps improve teaching methods. So that disabled students can get education easily.
- 2) Assistive technology shapes the curriculum specifically and helps students with disabilities develop knowledge.
- 3) Assistant technology helps students solve problems and adapt to the environment.
- 4) Assistive technology helps students with disabilities speak, remember, move, write, see, hear, and read.
- 5) Students can learning effective way by using assistant technology. Student records teacher's speech and learn from this recorded devices.
- 6) Assistive technology helps to complete task and provides to opportunity for engage in different types of activities.

### **ASSISTANT TECHNOLOGY FOR DIFFERENT KIND OF DISABILITIES STUDENTS:**

#### **Assistant Technology for Visual Impairment:**

Braille is useful device for visual impairment children. It uses for reading and writing for visual impairment children. There are various kinds of assistant technology to use improvement for learning of visual impairment children. In Android device, Google assistant is helps to access the content. Talkbook is also helpful for visual impairment students. Teachers encourage students to use of Braille for reading and writing. Recorded audio is also useful for records of teachers lecture and they are learning from this recorded audio.

#### **Assistant technology for hearing impairment:**

Assistant technology is helps to hearing impairment children to hearing and adjust with environment. It helps to express his thoughts and hearing clearly. There are various types of hearing aids-Cochlear

implants, telephone amplifiers, flashing and vibrating alarms, audio loops systems, infrared listening devices, portable sound amplifiers.

### **Assistant technology for orthopaedic disabled children:**

Wheelchair helps orthopaedic children to move from one place to another very nicely. Assistant technology helps orthopaedic students sit comfortably in the classroom. Some devices are Cane, crutches, standing devices, prosthetic devices, gate trainer, walker.

### **Assistant technology for learning disabled children:**

A) **Dyslexia**:- Calculators, computer-based software, text-to-speech, speech-to-text, word prediction, spell check, electronic or audio books, graphic organizers, outline templates, slant boards, highlighting, reading windows, etc. are using for learning disabled children.

B) **Dysgraphia**:- Pen scanners are using for scan of hand writing. It is low cost device. Digital typewriters is also useful for Dyscalculia students. Dictation as assistive technology is an alternative input format where the user uses their voice to speak text and formatting information,

C) **Dyscalculia**:- Calculator is useful for Dyscalculia students to clear concept about maths. It is solve to problem of mathematics.

### **Assistant technology for Intellectual Impairment:**

A)Communication devices:- AAC devices: communication boards, quick talker, symbols or pictures, Voice generating systems: TTS are use for communication with each other in our society.

B) cognition devices:- lists, visual and picture based schedules, timers and automatic reminders, touch screens, adapted toys and games.

### **BARRIERS OF USING ASSISTANT TECHNOLOGY FOR DISABLED CHILDREN:**

There are various kinds difficulty to use assistant technology. We are see various kinds barriers to use assistant technology.

### **Negative attitude of peoples:**

We are only believes that teacher only one person who teach children. Specially we can not believe that assistant technology is helps to achievement content. Negative attitude of people is one of main reason to barrier for disabled children.

**Lack of training:**

Teachers need training to use assistant technology. Students are facing problems in learning because the assistant technology cannot be used properly by the teachers. Without appropriate training and support, teachers cannot use assistant technology property. Teachers should make proper use of these devices where there is no network connection and electricity.

**Lack of fund:**

Due to lack of appropriate fund, the assistant technology in educational institutions is not adequate. Adequate funds are needed to run any educational institution. Government is trying hard to implement assistant technology but high ranking officers do not make any campaign to use this assistant technology.

**Lack of human resources:**

It is use only for trained person. But lack of human resources one of main barrier to use assistant technology.

**Lack of economic condition:**

Poverty is main reason to barrier of implementation assistant technology. Parents cannot afford assistance technology for their disabled children due to poor economic conditions. Assistant technology is not available for many organizations due to poor economic conditions.

**Lack of parents involvement:**

Assistant technology means different kind of technology such as wheelchair, talking calculator, audio book and different types software. It is uses for education much easy for disabled children. But We only believe that teacher is more powerful than assistant technology. Only teacher can best performance than assistant technology. Parents should be involve with teachers for using assistant technology and know about advantages of assistant technology.

**Conclusion:-**

Assistive technology increases knowledge of disabled students. It makes more effective teaching and learning also. It identifies students' weaknesses and strengths. It improves the capacity of students' knowledge. Authorities should improve the infrastructure of schools. Ramps, door openers, light of environment controllers and electronic control of environment such as lighting and temperature etc where students can learn comfortably.

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