REVIEW OF RESEARCH
IMPACT FACTOR : 5.7631(UIF) UGC APPROVED JOURNAL NO. 48514 ISSN: 2249-894X
VOLUME - 8 | ISSUE - 5 | FEBRUARY - 2019

USE OF ASSISTIVE TECHNOLOGY FOR CHILDRENS WITH SPECIAL NEED

Dr. Ajay Kumar
L.L.R.M. College of Education, Dhudike, Moga.

ABSTRACT :

Kids with handicaps experience distinctive types of rejection, which may cut them off from wellbeing, instruction and social administrations, and utmost their support in family, network and society. This detachment can effectsly affect future work openings and cooperation in urban life.In this chapter, we provide the theoretical framework that focuses on Assistive technology, its advantages and also focuses on the types of assistive technology for children with special need. (UNICEF. 2013).

KEYWORDS : *Assistive technology and Children with special need.*

INTRODUCTION:

Youngsters with inabilities experience distinctive types of prohibition, which may cut them off from wellbeing, training and social administrations, and utmost their support in family, network and society. This separation can effectsly affect future work openings and cooperation in municipal life. Steady administrations and innovation can empower youngsters with inabilities to have their spot in the public arena and add to their family and network. Assistive innovation incorporates items and related administrations that enhance the working of individuals with handicaps. It very well may be instrumental for kids' improvement and wellbeing, just as for cooperation in different features of life. These incorporate correspondence, versatility, self-care, family errands, family connections, instruction, commitment in play and amusement. Assistive innovation can improve the personal satisfaction of the two youngsters and their families. ***(UNICEF, 2013)***

Meaning of Assistive Technology

Assistive Technology is redefining what is possible for people with a various range of cognitive, print, and physical (abilities) disabilities, be it in the home, classroom, workplace and community. Assistive Technology is enabling all individuals, including those with disabilities to be more independent, self-confident, productive and better included in every day life, education, employment and living. *http://www.nasdse.com/AAATE%20Paper.htmlhttp://www.nasdse.com/AAATE%20Paper.html*

Assistive Educational Technology (AET) is the hypothesis and routine with regards to structure, advancement, use, the board, and assessment of procedures and assets that are utilized to increment, keep up, or enhance practical abilities of people, with or without handicaps, for learning (Cavanaugh, 2000).

I.D.E.A., the Federal Special Education law, provides the following legal definition of Assistive Technology : “Any item, piece of equipment or product system… that is used to increase, maintain or improve the functional capabilities of individuals with disabilities. Under I.D.E.A. assistive technology devices

can be used in the educational setting to provide a variety of accommodations or adaptations for people with disabilities. *(Thought - Individuals with Disabilities Education Act (1992).*

The law characterizes Assistive Technology Service as: "Any administration that specifically helps a person with a handicap in the choice, procurement or utilization of an assistive innovation gadget".
Recuperation Engineering and Assistive Technology Society of North America (RESNA, 2000) has perceived twelve unmistakable areas where assistive advancement can be used; each of the twelve apply here and there to the instructive setting. Of the twelve, four zones are that would have a noteworthy effect in any school circumstance, including: Work Site Modifications, Instructional Material Aids, Seating and Positioning Aids, and Sensory Aids. The other assistive innovation application regions are Aids for Daily Living, Communication and Augmentative Communication Tools, Environmental Control Systems, Leisure Time or Recreational Adaptations, Mobility Aids, Prosthetics and Orthotics, and Vehicle Modifications.

Kinds of assistive innovation

As per CAST (1998), so as to achieve students with different foundations, premiums, styles, capacities, handicaps, and dimensions of aptitude, the instructive materials ought to be adaptable and versatile for all learning styles. Using assistive advancements, similar to content to-discourse programming programs, instructors can give devices that help all understudies in their undertakings.

Assistive Technology can be anything home-made, purchased off the shelf, modified or commercially available which is used to help an individual perform some task of daily living. The term Assistive Technology encompasses a broad range of devices, from “low-tech” pencil grips, slant boards and picture schedules, to “high tech” solutions such as: sources: https://atfored.com/workshops-and-pd-trainings/

E-Books and Apps - There are Apps for accessing digital books such as Voice Dream and iBooks, as well as many free e-book and audio book options. Read text books for school or books for pleasure. Apps can be utilized with accessibility features such as Voice-Over, text to speech, Zoom/ Magnification, Highlighting, Definitions, Annotations, Font style and color selection, large text, etc.

Free Text-To-Speech Software – If you simply need just Text-to-Speech while navigating online or typing a paper, there are MANY free options, such as Natural Reader and Chrome extensions.

DAISY Audio Players – There are several DAISY audio players available, such as the Bookport Plus, PlexTalk, and VictorStream. These audio book players are accessible to individuals who are Blind or Visually impaired, as well as those with print disabilities due to a physical or cognitive disability, such as TBI or Dyslexia.

iPad and iPhone Apps – Apps for Learning, Apps for Communicating, Apps for Magnification and Screen Reading, Apps for Navigating, Apps for organization, studying, reminding, and scheduling; Apps for all subjects- and the learning is engaging and interactive.

QR Codes and Bar Codes – QR codes can be utilized to identify anything from books, to clothing, to food- anything you want to identify can have a QR code created for it.

Digital Magnifiers and Magnification Software and Hardware - Software to magnify your computer screen, invert text colors, increase mouse and cursor sizes. Hardware to Magnify Documents and Books, magnify the Whiteboard or Chalkboard to be able to see instruction, Take photos to study later, screen reading built-in, and more options for individuals who are Visually impaired, or losing sight over time.

JAWS Screen Reader - for individuals who are Blind and need screen reading and keyboard shortcuts to access the internet, email, and other computer applications for communication, research, and learning.

Live Scribe Smart Pen –Excellent for brief note taking and studying. Utilized by students who cannot take notes and listen/ comprehend/ process simultaneously, as well as those with spelling or grammar issues, and physical access issues to handwriting. Bookmark important references, upload visual of notes to computer as well as the audio, share notes and audio with others quickly, add to notes later as you listen to audio.

Refreshable Braille Displays – utilized by individuals who are Blind and Read Braille. Access all information on the computer, iPad, or iphone by connecting to a refreshable Braille display, and having instant, real-time, refreshing Braille to access the information that is presented.

Communication Boards – and Schedule Boards, for individuals to communicate, and to utilize for behavior management, daily schedules, and organization. Communication boards can be hand-made with symbols or photos, and can also be digital and incorporated on an AAC device for communication.

Mind Mapping, Brainstorming – Many software programs and Apps such as Popplet, Inspiration, and Fact-Mapper in Read and Write Gold offer the ability to brainstorm ideas, outline, and create visual templates and study guides to use for writing a paper, creating a project, or studying for a test. Others may use the tools for preparing for a meeting, or to use as a presentation visual.

Adjustable Monitors and Keyboards - Adjustable monitors, keyboards, keyboard trays, large-font keyboards, adjustable tables and chairs, modifications and adaptations to wheelchairs and mobility equipment. All aspects of equal access should be considered for a student or individual.

Adjustable and Large Font Keyboards – Keyboards with trays that raise and lower, Large Font Keyboards with easy to see keys, one-handed keyboards, keyguards and guides for the iPad and AAC devices.

Switch Access – For Individuals with limited physical access. If an individual can consistently move one part of their body- their chin, a finger, a knee, a toe, their head etc., they can use an adapted switch to access the computer, an iPad, an AAC device for communicating, and other devices such as a phone or appliances.

Track Balls and Track Ball Mice – There are many types of trackball mice or joystick options for mouse control, for individuals with physical access challenges, who may not be able to use a standard computer mouse. Trackball mice are also used for ergonomic purposes, to avoid strain.

Augmentative and Alternative Communication (A.A.C.) – Eye Gaze Access to a Computer. AAC devices may be touch-screen or eye-gaze activated. Eye-gaze can also be utilized for computer access and environmental controls, in addition to communication and personal choice.

Advantages of Assistive Technology

Today numerous individuals with inabilities are breaking obstructions using innovation. For a few people with incapacities, assistive innovation is an essential instrument that empowers them to participate in or perform numerous assignments. The availability of assistive technology devices and services enables some individuals with disabilities to *(Blackhurst and Morse1996)*

*have greater control over their own lives;
* participate in and contribute more fully to activities in their home, school, work environments,
*and in their communities;
*interact to a greater extent with non-disabled individuals;
*otherwise benefit from opportunities that are taken for granted by individuals who do not have
*disabilities (Hosmer, 1995)
*Increased self-motivation

*Increased independence
*Integrated and required participation
*Accountability
*Expanded learning and life experiences
*New opportunities for interactions and communication
*Changed vision of potential by adults, peers and child (Sheets and Wirkus, 1997)

CONCLUSION

As the education of all students occurs more frequently within the standard classroom in the inclusion environment, the concepts of teaching and learning that incorporate assistive technology approaches and accommodations become more important. Assistive innovation is a wide-running instructive apparatus that is developing in its utilization and significance, and is required for thought for all understudies characterized with any type of inability and must be incorporated on that understudies singular training plan (IEP). Assistive innovation devices can enable access to data and exercises that generally are blocked off. An additional advantage is that the devices can likewise make data and assets increasingly accessible even to the individuals who don't have an inability or have not yet been distinguished as having a handicap.

REFERENCES

Blackhurst, E., and Morse, T. (1996). Using Anchored Instruction to Teach About Assistive Technology. *Focus on Autism and Other Developmental Disabilities, Volume 11, (3), 131.*

CAST - Center for Applied Special Technology (1998). Universal Design for Learning Consortium Envisions Improved Outcomes for Children. http://www.cast.org/udl/index.cfm.

Cavanaugh,T.(2000). Assistive Technology and its Relationship with Educational Technology. http://www.unf.edu/~tcavanau/research/aet/index.htm.

Hosmer, L. T. (1995). Trust: The Connecting Link between Organizational Theory and Philosophical Ethics. *Academy of Management Review, 20, 379-403*

IDEA - Individuals with Disabilities Education Act (1992). Pub. L. No. 101-476. http://frwebgate.access.gpo.gov/cgibin/getdoc.cgi.

Reed, P. & Bowser, G. (2005). "Assistive technologies and the IEP" in Edyburn, D., Higgins, K.

Resna, (2000). *Rehabilitation Engineering and Assistive Technology Society of North America.* Resna 1560, Wilson Bvd Arlington.

Sheets, Lana and Wirkus, Mary. (1997). Everyone's Classroom: An environment designed to invite and facilitate active participation. *Closing the Gap, Volume 16-Number 1, 1-9.*

UN. 2006. "Convention on the Rights of Persons with Disabilities". *United Nations*. http://www.un.org/disabilities/convention/conventionfull.shtml,

UNESCO. 2002a. "Understanding and Responding to the Children's Needs of Inclusive Classroom." http://www.unescobkk.org/fileadmin/user_upload/appeal/IE/Publications.

UNICEF 2009. "Childlinfo. Monitoring the rights of children and women". http://www.childinfo.org/disability_resources.html.

UNICEF. The state of the world's children 2013. ies. New York: United Nations Children's Fund; 2013.

UNICEF (2013). United Nations Children's Fund 3 United Nations Plaza New York, NY 10017 .pubdoc@unicef.org www.unicef.org/sowc2013

WHO (2009) "Assistive devices/ technologies" http://www.who.int/disabilities/technology/en/

USEFULL LINKS

http://www.nasdse.com/AAATE%20Paper.htmlhttp://www.nasdse.com/AAATE%20Paper.html
sources: https://atfored.com/workshops-and-pd-trainings/