

TECHNOLOGY FOR CHALLENGED LEARNERS

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Education is powerful instrument of social change and often initiates upward movement in social structure thereby bridging the gap between the different sections of society. The educational scene in our country has undergone major changes over the years resulting in better provision of education and better educational practices for the learners with Special Educational Need (SEN).

In India Learners with SEN defined variously in different documents in DPEP defines it as child with special focus Group and makes provision of other groups like girls, SCs, STs, Urban, Deprived children under the SEN.

The SEN has been accepted in broad perspectives; on the whole the focus has remained to learners with specific disabilities and specific abilities

In the context of Inclusive setting these learners with special educational needs are the challenged learners. They may be intellectually challenged, socially challenged or physically challenged .In future the teacher may face challenges of how to educate them, how to access them and how to provide equal opportunities for them etc.

To face these challenges, the use of technology is inevitable. It provides essential support to these challenged learners. Normal people are enjoying the benefits of technology

hence, it should meet the needs of challenged learners so that they will gain the confidence and their life will become comfortable.

Technology satisfy the needs of community, it apply scientific knowledge to practical purpose. Educational technology makes the teaching-learning process more efficient and effective. It facilitates learning.

Educational technology contributes to independence, gain access, self-care, education, recreation to challenged learners. Hence, the teacher has to be equipped with all aspects of Educational technology.

Educational technology deals with two aspects of Technology as Technology in Education and Technology of Education. Technology in education deals with hardware aspects. It includes all gadgets and systems, teaching aids, satellite, virtual classroom, audio, video, audio-visual aids which suits teaching and learning. It is also called Hardware technology.

Technology of Education deals with innovative and motivating methods of teaching and learning. It is also called Software technology.

For the challenged learners both the Hardware and Software technology play important role. It also includes interactive multimedia softwares, specific softwares for challenged learners such as Visual impaired, Hearing impaired etc.

Hardware technology for challenged learners includes use of the CAI, audio, video, audio-visual instruments, devices etc. which suits learning of challenged learners though educational technology is categorized as Technology of Education and Technology in education. They are inseparable aspect hence teacher has to use them altogether.

Educational technology to challenged learners includes innovative teaching – learning strategies, which are motivating, activity based etc. Teacher may consider following teaching- learning strategies for challenged learners.

- 1) **Adapting instructions-** modifying instructional material, resources, learning environment etc
- 2) **Differential teaching practices-** to accommodate differences among learners and to cater their special needs, delivering of instruction should be flexible
- 3) **Participatory approach-**use of collaborative techniques in which collaborative teaching- learning strategies, peer assistance in dealing with intellectually challenged is encouraged. Teacher can conduct cooperative and collaborative activities among learners.

- 4) Individualized education program-special education for challenged learners is individualized to meet their unique needs.

- 5) Ability Grouping, placing students into different groups within a school based on academic abilities it includes streaming and setting

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(Dr. P. George and Raja Kumar)

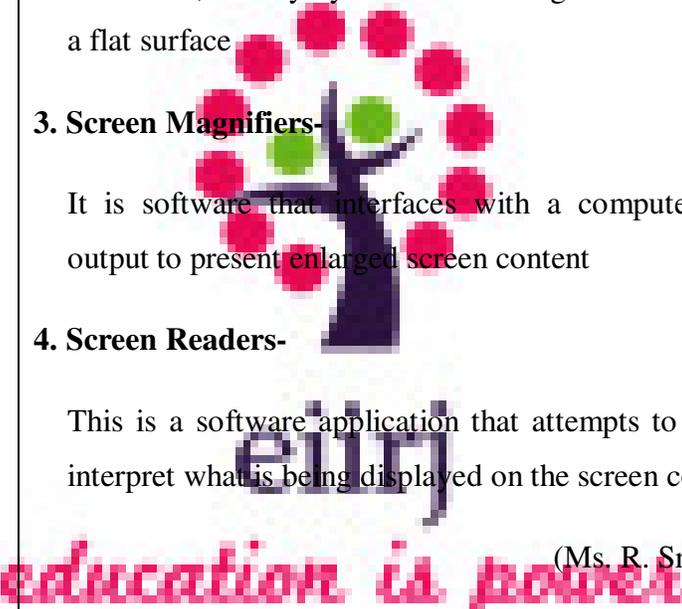
education is power

- 6) Art and Music Therapy especially used for intellectually challenged such as mentally retarded.

Now a day's technology used for challenged learner is grouped into Assistive Technology consisting of use of assistive tools.

- 7) Use of assistive tools- the term assistive tool means any item, piece of equipment, or product system, whether acquired commercially or self or customized is used to increase, maintain, or improve functional capabilities of a child with a disability.

Assistive Technologies for challenged learners:

<p>For Visual Impaired</p>	<p>1. Portable record Player, E-books, Screen readers, Screen enlargers, Speech recognition systems, Speech synthesizers, refreshable Braille displays, Braille embossers, Sparsha software.</p> <p>2. Braille and refreshable Braille-</p> <p>This is an electro-mechanical device for displaying Braille characters, usually by means of raising dots through holes in a flat surface</p> <p>3. Screen Magnifiers-</p> <p>It is software that interfaces with a computers graphical output to present enlarged screen content</p> <p>4. Screen Readers-</p> <p>This is a software application that attempts to identify and interpret what is being displayed on the screen content</p> <p style="text-align: right;">(Ms. R. Sreerekha)</p> 
<p>For physical Impairment</p>	<p>1. Adaptive key Boards, Speech recognition system, speech synthesizers, touch screens.</p> <p>2. Alternative Keyboards-</p> <p>These have been designed for people who have difficulty in using their hands or who use feet</p> <p>3. Speech Recognition-</p> <p>It converts spoken words to machine-readable input and is</p>

	<p>especially useful for people having difficulty in using their hands</p> <p>4. ITCP-</p> <p>Multimedia software for writing</p> <p>(Mr. K.V.S. Prakash, N. Srivalli Kuamari)</p>
For Hearing Impairment	<p>1. These people can make use of computer well, it is said that deaf people can be good programmers, multimedia CDs, Captioning</p>
Cognitive Impairment	<p>1. Speech synthesizers, Speech recognition, Reading tools and learning disability programmes etc.</p> <p>2. Speech Synthesizers-</p> <p>It involves the artificial production of human like speech.</p> <p>3. Voice Browsers-</p> <p>A web browsers that presents an interactive voice user interface to the</p> <p>4. Shruti-</p> <p>Shruti is screen enabled speech recognition system</p>
Alternative Access devices	<p>Devices like Track ball, joystick, mouth sticks, head pointers and switches can be used as inputs if standard keyboard and mouse usage are not possible</p>

Thus, Teachers can use varieties of self developed tools and techniques to cater the multiple needs of challenged learners.

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