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## *Golden Research Thoughts*

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# Golden Research Thoughts

**GRT**

## “ROLE OF TECHNOLOGY IN HELPING DISABLED ONE IN EDUCATION”

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### ABSTRACT

Education is widely accepted as a powerful key for the development of any nation. Gandhiji's dream, 'Basic Education' includes the whole range of educational activities in all settings (formal, non-formal and informal), that aim to meet basic learning needs, hence the principle of basic education as a human right is accepted internationally. However, the children of many countries are not getting equal opportunities of education and even not able to acquire the education due to various disabilities such as physical, sensory and mental disabilities. These and many more physical challenges keep such children from normal schooling. Nowadays, there is a drastic change in the technology as many innovation is

being taking place in this field. These innovations are not only meant for the normal children but they are also provide an opportunity to make use of modern technology. In the present scenario, education is very much influenced by the information and communication technology, which can also be included in the inclusive education which enables an equal treatment to these children.

This article provides an overview of the assistive technology which helps in promoting the education of children with disability within the regular classroom.

**KEYWORDS** :Assistive Technology, ICT.

### INTRODUCTION:

The primary purpose of education is the manifestation of perfection already in man (Swami Vivekananda); purpose of education is all round development of the child / individual. Today's children are the first generation of the "digital age." They are

being raised in a society that is changing rapidly as a result of the influx of new computer-based technologies that provide more pervasive and faster worldwide links to commerce, communication, and culture (Ted S. Hasselbring 2000). Every child is unique and different from one another. It has its own ability and capacity and learns in a different ways and with different paces. Disability is not a curse, everybody is unique and had their own capacity. Each and everyone in the society has the equal right to access education despite of their capabilities. Several technological aids are invented especially for the disabled children to make their learning easy. For disabled children, computer based technologies can play an important role. Despite of these computer technology, several adaptive technology can also be make use. These adaptive technologies enable them to become active learners in the classroom like their peer those who are normal. These technological tool can be named as Assistive tool. Millions of the disabled children are benefited from these assistive technology.

### **CHILDREN WITH DISABILITY: WHO ARE THEY?**

Over the past 20 years, the number of students with disabilities has been steadily increasing at a faster rate than both the general population and school enrollment.

A special needs child is child who has been determined to require special attention and specific necessities that other children do not. The state decides upon this status and offers benefits that follow a special needs child because it is believed the child will not be adopted if assistance is not provided. So, these children need special care and concern which can be provided by the usage of the modern technological tools.

Incorporating technology into instruction in a manner that supports students with disabilities can take many forms, can have multiple purposes, and can frequently change as technology evolves. Both policy and research contribute to this technology integration across teaching practices for students with a variety of academic and social/behavioral strengths and challenges. (Maya Israel, 2014)

### **ASSISTIVE TECHNOLOGY:**

Assistive technology is an umbrella term that perform many useful functions which is especially developed for the children having disabilities in different field. This Assistive Technology includes many adaptive and relocating techniques for the disabled children which in turn helps them to select and relocate the information in the proper way. This technology provides a greater independence which enables the child to perform the function independently irrespective of its disability. Assistive technology (AT) is available to help individuals with many types of disabilities from cognitive problems to physical impairment. (Kristin Stanberry, Marshall H. Raskind)

### **ASSISTIVE TECHNOLOGY TOOLS**

The term "assistive technology" has usually been applied to computer hardware and software and electronic devices. However, many assistive technology tools are now available on the Internet. Assistive technology tools that support kids with Learning Disability include: (Kristin Stanberry , Marshall Raskind)

### **ALTERNATIVE KEYBOARDS (WRITING):**

The alternative keyboard helps the children suffering from learning disability. These programmable keyboards have special overlays that customize the appearance and function of a standard keyboard. These alternative keyboards helps the students to reduce input choice, group keys are in different colours and locations and also it has graphics to aid comprehension.

### **AUDIO BOOKS & PUBLICATIONS ( READING):**

Audio books helps the children with visual disability, where all the nformation are available in audio form which can be taken in CD’s M3 and audio cassettes. Recorded books allow users to listen to text and are available in a variety of formats Special playback units allow users to and search and bookmark pages and chapters. Subscription services offer extensive electronic library collections.

### **ELECTRONIC MATH WORKSHEETS (MATH):**

Electronic math worksheets are the ready available software programs, it helps the children to organize, align the data in a readable way. By using this software one can perform the basic mathematical functions. It will read the number which appears on the screen and made easy to understand. This may be helpful to people who have trouble aligning math problems with pencil and paper.

### **INFORMATION/DATA MANAGERS**

This type of tool helps a person plan, organize, store, and retrieve his calendar, task list, contact data, and other information in electronic form. Personal data managers may be portable, hand-held devices, computer software, or a combination of those tools working together by "sharing" data. (Kristin Stanberry , Marshall Raskind)

### **SPEECH-RECOGNITION PROGRAMS:**

A speech recognition program works along with the word processor. Microphone is used in this setup, user has to dictate the word and the word dictated by the user will display on the screen in the form of text. This can help a user whose oral language ability is better than his writing skills.

### **FREE-FORM DATABASE SOFTWARE (ORGANIZATION AND MEMORY):**

This software helps the user to store their notes in the electronic form by jotting down relevant information. One of the major uses of this software is lengthy notes of any subject can be stored. He can later retrieve the information by typing any fragment of the original note.

### **GRAPHIC ORGANIZERS & OUTLINING (WRITING):**

This software is helpful especially for the children who trouble in writing. This software organizes and outline the programs which help the child to create note and other project work. Many informations can be dumped into this and organized in a meaningful and structured format.

### **PROOFREADING PROGRAMS**

Students who struggle with writing (e.g., spelling, grammar, punctuation, word usage, and sentence structure) may benefit from software programs (included in many word processing systems) that scan word processing documents and alert the user to possible errors.( Kristin Stanberry , Marshall Raskind)

### **TALKING CALCULATORS ( MATH):**

A talking calculator has a built-in speech synthesizer that reads aloud each number, symbol, or operation key a user presses; it also vocalizes the answer to the problem. This auditory feedback may help a student check the accuracy of the keys he presses and verify the answer before he transfers it to paper.

### **TALKING SPELL-CHECKERS/ELECTRONIC DICTIONARIES ( WRITING/SPELLING):**

Talking spell checkers and electronic dictionaries helps the children who are suffering to identify the spelling of a particular word. It helps to identify the proper spelling of words. Talking devices "read aloud" and display the selected words onscreen, so the user can see and hear the words.

### **PORTABLE WORD PROCESSORS (WRITING):**

A portable word processor is mainly meant for the children suffering from the writing trouble and who prefer to use keyboard rather than pen and pencil. As the name indicate, the above mentioned word processor is very portable and it can easily taken to the class from home. Word processing allows the user to edit and correct his written work more efficiently than doing so by hand.

### **CONCLUSION:**

It is necessary to have a digital literacy among all children which enables them for the participation in the knowledge society and to get equal opportunities in all disciplines. Educational technology play an important role in facilitating digital literacy of students. Educational institutions have been slow to ensure accessibility of learning materials and environments for disabled children. Assistive technologies significantly help disabled students in general to excel in inclusive teaching and learning. These technologies comprise a number of products which include a wide variety of software and hardware approaches which allow disabled to perform difficult task independently. Assistive technology can be developed for all types of disabilities.

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