

THE GREAT CONTRIBUTION OF ICT IN THE FIELD OF EDUCATION

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Abstract

A ICT stand for information and communication technologies and are defined, for the purposes, as a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. These technologies include computers, the Internet, broad casting technologies like radio, television, cell phone. 21st century is characterized with the emergence of knowledge based society wherein ICT plays a vital role. The national curriculum framework 2005 has also highlighted the importance of ICT in school education .with this backdrop, major paradigm shift is imperative in education characterized by imparting instructions, collaborative learning, and multidisciplinary problem solving and promoting critical thinking skills. The govt of India has announced 2010-2020 as the decade of innovation .reasoning and critical thinking skills are necessary for innovation. Foundation of these skills is laid at school level. It is desirable that affordable ICT tools and techniques should be integrated into class room instruction right from primary stage so as to enable students develop their requisite skills. Most of the tools, techniques and tutorials are available in open domain and accessible on web.

Introduction of ICT in Education

ICT's are a potentially powerful tool for extending educational opportunities, both formal and non formal education. Previously underserved constituencies-scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and woman, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll on campus. In india feb 7th 2010 wherein the NCERT had invited responses from teachers involved in the teaching and learning of mathematics at the senior secondary stage to acquire the skills for using the World Wide Web, The CBSE would like to extend it to all subjects and all classes. At the senior secondary level, when students are so exposed, they will get highly motivated to use ICT tools for taking up complex, multidisciplinary problems such as Bio-chemistry, Bio-Informatics, Environmental science, Forensic-science, Nano technology, Business Intelligence etc. This may necessitate computing tools and techniques of generic nature as well as domain-specific. This is the time when the students and the teachers together will work in global competitive environment

Objectives of using ICT in System of Education

There are three general approaches to the Instructional use of computers and the Internet, namely

- Learning about computers and the internet in which technological literacy is the end goal
- Learning with computers and the Internet ,in which the technology facilitates learning across the curriculum
- Learning through computers and the Internet, integrating technological skills development with curriculum applications
- Learning with the technology means focusing on how the technology can be the means to learning ends across the curriculum. It includes

1. Demonstration, and the manipulation of data using productivity tools
2. Use of curriculum-specific applications types such as educational games, drill and practice, simulations, tutorials, virtual laboratories, visualizations and graphical representations of abstract concepts, musical compositions and expert systems.
3. Use of information and resources on CD-ROM or online such as encyclopedia, Interactive maps and atlases, electronic journals and other references.

Advantages of ICT in Education

Here are some of the benefits which ICT brings to education according to recent research findings not only students but also useful for teachers and parents and society

For the Teachers

- ICT facilitates sharing of resources, expertise and advice and greater flexibility in when and where tasks are carried out
- Gains in ICT literacy skills, confidence and enthusiasm, easier planning and preparation of lessons and designing materials
- Access to up to date people and school data, any time and any where .Enhancement of professional image projected to colleagues
- Students are generally more on task and express more positive feelings when they use computers than when they are given other tasks to do.
- Computer use during lessons motivated students to continue using learning out side school hours.

For the Students

- Higher quality lessons through greater collaboration between teachers in planning preparing recourses
- More focused teaching, tailored to students strengths and weaknesses, through better analyses of attainment of data
- Gains in understanding and analytical skills, including improvements in reading comprehension and development of writing skills like spelling, grammar, punctuation, editing and redrafting and also fluency, originality and elaboration.
- Encouragement of independent and active learning, self responsibility for learning, flexibility of any time any where access
- Opportunities to address their work to an external audience. opportunities to collaborate on assignments with people out side or inside school

For the Parents

- Easier communication with teachers and higher quality student reports-more legible more detailed, better presented
- Greater access to more accurate attendance and attainment information, increased involvement in Education for parents and, in some cases improved self-esteem.
- Parents are more likely to be engaged in the school community
- Not only ICT helps in above fields but also it improves quality education like: Motivating to learn, Facilitating the acquisition of basic skills, Enhancing teacher training, Finding out processing knowledge, Sharing knowledge

- ICT also helping and be used in distance education. Now a days many higher educational institutions offering distance education courses have started to leverage the internet to improve their programs reach and quality.

In order to proper usage of ICT in schools we need to set up following equipment like:

- a) a projection or display device
- b) an interactive system
- c) computer with ups system
- d) good quality sound boxes
- e) seating arrangement for all students should visible

Disadvantages of ICT

- One of the major barriers for the cause of ICT not reaching its full potential in the foundation stage is teachers attitude
- According to famous scientist “hara”-within the early years education attitudes towards ICT can vary considerably. some see it has a potential tool to aid learning where as others seem to disagree with the use of technology in early year settings
- According to Blatchford&white bread suggests that the use of ICT in the foundation stage is unhealthy and hinders learning.
- Other early years educators who are opposed to offering ICT experiences with in the educational settings take a less extreme view than these and suggest that ICT is fine, but there are other more vital experiences that young children will benefit from .
- In theory some people may have the opinion that the teachers who had not experienced ICT throughout their learning tend to have a negative attitude towards it, as they may lack the training in that area of curriculum
- Another important drawback to using ICT in schools is the fact that computers are expensive. According to the IT learning exchange, in most schools ICT will be the single largest curriculum budget cost. this may be seen as a good thing but on the other hand there will be little money left over for other significant costs.

Conclusion

As a first step in this direction all CBSE affiliated schools are advised to set up at least one class room in their schools equipped with technology to enable uses of digital instruction materials in the class room. Teachers wishing to teach a topic with multimedia resources can take the class to this class room. Proper advance scheduling may help teachers in there ventures. In order to achieve quality education we need to involve ICT in all education stages so that students may be encouraged to form creative computing club to try out innovative applications without any stress and compulsion. For future, school can plan to set up every year more such class rooms by building capacity among their own teachers to create enriched electronic resources for each displine as well as cutting across curricular areas. prompt action by schools in this direction.

Reference

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