

**How to Cite:**

Boruah, N. (2022). Impact of ICT in education. *International Journal of Health Sciences*, 6(S2), 1818–1822. <https://doi.org/10.53730/ijhs.v6nS2.5397>

# Impact of ICT in Education

**Nibedita Boruah**

Department of Education, Dibrugarh University

**Abstract**---"Globalization and technological changes have created a new global economy powered by technology, fueled by information and driven by knowledge. Information and communication technologies (ICTs) — which include radio and television, as well as newer digital technologies such as computers and the Internet — have been proven as potentially powerful tools for educational change and reform. When used appropriately, different ICTs can help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by helping make teaching and learning into an active process connected to real life.

**Keywords**---ICT, impact ICT, barrier, strategy.

## Introduction

Information and Communication Technology (ICT) includes computers, the Internet, and electronic device systems such as radios, televisions, and projectors among others, and is widely used in today's education system. ICT is being applied successfully in instruction, learning, and assesment. ICT is considered a powerful tool for educational change and reform. A number of previous studies have shown that an appropriate use of ICT can raise educational quality and connect learning to real-life situations (Lowther, et al. 2008; Weert and Tatnall 2005).Tatnall (2005) have pointed out, learning is an ongoing lifelong activity where learners change. ICT tends to expand access to education. Through ICT, learning can occur any time and anywhere. Online course materials, for example, can be accessible 24 hours a day, seven days a week. Teleconferencing classrooms allow both learner and teacher to interact simultaneously with ease and convenience. Based on ICT, learning and teaching no longer depend exclusively on printed materials. Multiple resources are abundant on the Internet, and knowledge can be acquired through video clips, audio sounds, visual presentation and so on. The impact of ICT in education is important in present context.

### **Positive impact of ICT in Education**

Through Using ICT, Student as well as teachers can easily interact with other. ICT helps in teaching learning situation. There are some point which indicate the benefits of using ICT in education.

1. Assist students in accessing digital information efficiently and effectively: In education system ICT is used as a tool for students to discover learning topics, solve problems, and provide solutions to the problems in the learning process. ICT makes knowledge acquisition more accessible, and concepts in learning areas are understood while engaging students in the application of ICT.
2. Support student-centered and self-directed learning: Students are now more frequently engaged in the meaningful use of computers . They build new knowledge through accessing, selecting, organizing, and interpreting information and data. Based on learning through ICT, students are more capable of using information and data from various sources, and critically assessing the quality of the learning materials.
3. Produce a creative learning environment: ICT develops students' new understanding in their areas of learning (Chai, Koh and Tsai 2010). ICT provides more creative solutions to different types of learning inquiries. For example, in a reading class, e-books are commonly used in reading aloud activities. Learners can access all types of texts from beginning to advanced levels with ease through computers, laptops, personal digital assistants (PDAs), or iPads. More specifically, these e-books may come with some reading applications, which offer a reading-aloud interface, relevant vocabulary-building activities, games related to reading skills and vocabulary acquisition, and more. Therefore, ICT involves purposedesigned applications that provide innovative ways to meet a variety of learning needs.
4. Promote collaborative learning in a distance-learning environment: Koc (2005) mentioned that using ICT enables students to communicate, share, and work collaboratively anywhere, any time. For instance, a teleconferencing classroom could invite students around the world to gather together simultaneously for a topic discussion. They may have the opportunity to analyze problems and explore ideas as well as to develop concepts.
- 5..Offer more opportunities to develop critical (higher-order) thinking skills: ICT helps students focus on higher-level concepts rather than less meaningful tasks (Levin and Wadmany 2006). A longer exposure in the ICT environment can foster students' higher critical thinking skills. Thus, schools are strongly advised to integrate technology across all of the learning areas and among all learning levels.
- 6.Improve teaching and learning quality: Through using ICT student can create something new and they engage themselves for acquiring knowledge through using ICT. ICT help educator to creat their own materials. When the ICT use in classroom the whol classroom remain active. than the classroom become effective. The quality education provide easily through using ICT.
7. Support teaching by Facilitating acces to course content: , ICT offers students more time to explore beyond the mechanics of course content allowing them to better understand concepts. The use of ICT also changes the teaching and learning relationship. Therefore, ICT changes the traditional teachercentered approach, and requires teachers to be more creative in customizing and adapting their own material.

8. Quick access to information :Information can be accessed in seconds by connecting to the internet and surfing through Web pages.

9.Easy availability of updated data: Sitting at home or at any comfortable place the desired information can be accessed easily. This helps the students to learn the updated content. Teachers too can keep themselves abreast of the latest teaching learning strategies and related technologies.

9•Connecting Geographically dispersed regions: With the advancement of ICT, education does not remain restricted within four walls of the educational institutions. Students from different parts of the world can learn together by using online, offline resources. This would result in the enriching learning experience. Such collaborative learning can result in developing.

- divergent thinking ability in students,
- Global perspectives
- respect for varied nature of human life and acculturation.
- Catering to the Individual differences:

10. Wider range of communication media: With the advent of ICT, different means of communication are being introduced in the teaching learning process. Offline learning, on line learning, blended learning are some of the resources that can be used in educational institutions. Collaborative learning, individualized learning strategies can enhance the quality of group as well as individual learning. with the real society. This can ensure the applicability of knowledge.

11• Wider learning opportunities for pupils: Application of latest ICT in education has provided many options to the learners to opt for the course of their choices. Many Online courses are available for them to select any as per their aptitude and interest. Students can evaluate their own progress through different quizzes, ready to use Online tests. This can ensure fulfillment of the employment required in the job market thus minimizing the problem of unemployment.

### **Barriers/ Challenges of ICT in education:**

There are so many challenge s of ICT using in education. These are mention below:

- Low teacher expectations and a lack of clear goals for ICT use in schools.
- A lack of teacher collaboration and pedagogical support, as well as a lack of experience
- among cooperating teachers.
- Insufficient time to master new software or integrate ICT during a class period
- Insufficient skills for managing teaching materials
- Low software competence and habitual ways of conceptualizing what and how students should learn .
- Limited knowledge and experience of ICT in teaching contexts (Honan 2008);
- A lack of specific knowledge about technology and how to combine it with the existing pedagogical content knowledge to support student learning.

- Excessive focus on teaching technical or operational skills rather than course content
- A lack of recognition and encouragement of the timely and effective use of ICT .
- A lack of in-service training on the use of ICT.
- Technical problems in the classroom .
- Classroom management with large class sizes .
- Lack of specific and definite ideas about how integrating technology into instruction will improve student learning.

Lack of adequate ICT devices is also a problem of education system. When administration and teacher are take a positive steps for using ICT in education than all of the student can benefited from using ICT.

### **Strategies**

Several strategies for dealing with these challenges have been suggested. Schools are encouraged to:

- Provide professional development activities related to technology to update teachers' skills and knowledge, and offer technical support when needed.
- Support partnerships that help teachers share effective technology practices and experiences .
- Provide workshops that allow teachers to reflect upon effective strategies for technology
- integration into instruction and unveil issues that are central to understanding the process of technology integration into instruction.
- Offer opportunities to virtually observe teachers who use technology .
- Provide enough freedom for teachers in selecting and covering curriculum materials
- Provide effective, timely, and continuous training to improve ICT skills and manage a technology-rich classroom
- Encourage positive attitudes about the significance of integrating ICT into instruction.
- Provide adequate technical support.

### **Conclusion**

From the above discussion we can say that ICT helps teacher and student both in their teaching learning situation. Through using ICT teacher impart knowledge easily to the student and student can understand their content very accurately. ICT play a vital role for improving teaching learning situation. The classroom also remain active while teacher teach them through using ICT.

### **References**

1. Agarwal J C, Essential of educational technology, eight edition.
2. kulseshreshtha Dr. S. P, kulseshreshtha Dr. A k, Foundation of educational technology, R. lall book depot 2008.

3. Retrived from  
[http://www.worldbank.org/education/pdf/ict\\_report\\_oct04.pdf](http://www.worldbank.org/education/pdf/ict_report_oct04.pdf) on  
December 2009
4. <http://www.eprmers.org> on December 2009)
5. (Retrieved from <http://www.apdip.net/projects/rhdr/resources/PDF> on  
December 2009.
6. (<http://rusc.uoc.edu>, downloaded March 4, 2011)
7. <https://ijedict.dec.uwi.edu//viewarticle.php/id/1541>.