

Role of Technology In Education

Ranjana Singh

Research Scholar, Department of Education, RKDF University, Ranchi

ABSTRACT:

Today, more than ever, the role of educational technology in teaching is of great importance because of the use of information and communication technologies. With the help of various applications for distance education, the internet, teachers, and students themselves, they see the advantage of educational technology. The question is whether schools and teachers themselves are ready for the use of technology in education and whether they are aware of its benefits? In this paper, we try to give an overview of the importance and use of educational technology in the classroom.

INTRODUCTION:

The era of 21st century is often regarded as an era of technology. Technology, today, plays a very important role in our life. It is seen as a basis of growth of an economy. An economy which is poor in technology can never grow in today's scenario. This is because technology makes our work much easier and less time consuming.

The impact of technology can be felt in every possible field one such field is Education.

MODERN TECHNOLOGY IN EDUCATION:

According to the latest insights as to how exactly modern students of today prefer to use technology and how does their learning get an impact if they use technology, it was revealed that the use of modern equipment technology and tools, the learning and interactivity of students increases. They also find it much more interactive, as well as full of interesting areas, when aided by technology. The transfer of knowledge becomes very easy and convenient, as

well as effective. What this means is, that our minds now tend to work faster when assisted with the use of modern technology, be it any part of life, here we talk about education. The reliance and dependence of such an innovation, that simply makes life an easy, smooth journey is completely unavoidable these days even in schools, universities and colleges. Students today can make use of technology in the following ways:

INTERNET CONNECTION AND ROUND THE CLOCK CONNECTIVITY:

The internet has grown in importance by many folds, over the process of decade. Its importance in the education world can now never be undermined. Despite the chances of fraud and drawbacks, the use of the internet is like a blessing for students. Today, the internet is something that is present in almost everything we use. From television to gaming consoles, and our phones, the internet is literally everywhere. The use of the internet allows students to find amazing convenience, they can find various kinds of help, tutorials and other kinds of assisting material which could be used to academically improve and enhance their learning.

USING PROJECTORS AND VISUALS:

Visual images always have a strong appeal compared to words. Using projectors and visuals to aid in learning is another form of great technological use. Top institutions around the world, now rely on the use of amazing PowerPoint presentations and projections in order to keep the learning interactive and interesting. Technological use such as projectors within the schools and colleges can take the interaction and interest levels right up and also improve motivation. Students like to see appealing visuals and something that entices them to think rather than just reading words. The learning part also becomes pretty efficient when it comes to technology

DIGITAL FOOTPRINT IN THE EDUCATION SECTOR:

If we talk about digital and education, then the penetration of digital media within the education sector has now grown. This penetration has resulted in round the clock connectivity with students and different forums that are available for different kinds of assignments or help. As the power of digital increases, there are and there will be more applications that will assist students in development and learning.

ONLINE DEGREES WITH THE USE OF TECHNOLOGY:

Online degrees now have become a very common phenomenon. People wish

to take up online courses for their learning and certifications. Top institutions offer amazing online programs with the use of various applications and the internet. This is a concept that will continue to rise as it gets more support and awareness. The online degree scenario around the world is more famous among students who work and look for flexible studying programs.

IMPORTANCE OF TECHNOLOGY IN EDUCATION:

The role of technology in the field of education is four-fold: it is included as a part of the curriculum, as an instructional delivery system, as a means of aiding instructions and also as a tool to enhance the entire learning process. Thanks to technology; education has gone from passive and reactive to interactive and aggressive.

Education is essential in corporate and academic settings. In the former, education or training is used to help workers do things differently than they did before. In the latter; education is geared towards creating curiosity in the minds of students. In either case, the use of technology can help students understand and retain concepts better.

FACTORS AFFECTING TECHNOLOGY IN EDUCATION:

Jung talks about the enormous challenge teachers are facing in our society due to the rapid expansion of knowledge. The modern technologies are demanding that teachers learn how to use these technologies in their teaching. Hence these new technologies increase the teachers' training needs. Gressard and Loyd (1985) asserted that teacher's attitudes toward computers are a key factor in the successful implementation of ICT in education. They pointed out that teachers do not always have positive attitudes towards computers and their poor attitudes may lead to a failure of the computer-based projects.

Also, the most commonly cited barriers are:

- Lack of time
- Lack of access
- Lack of resources
- Lack of expertise
- Lack of support

Another barrier given by Butler and Sellbom (2002) and Chizmar & Williams (2001) is reliability. Reliability included hardware failures,

incompatible software between home and school, poor or slow internet connectivity and out of date software which are available mostly at school while the students/educators are having more up-to- date software at home.

IMPACT OF ICT ON EDUCATION:

In educational context, ICT has the potential to increase access to education and improve its relevance and quality. Tinio (2002) asserted that ICT has a tremendous impact on education in terms of acquisition and absorption of knowledge to both teachers and students through the promotion of:

- **Active Learning:** ICT tools help for the calculation and analysis of information obtained for examination and also students' performance report are all being computerized and made easily available for inquiry. In contrast to memorization-based or rote learning, ICT promotes learner engagement as learners choose what to learn at their own pace and work on real life situations' problems.
- **Collaborative And Cooperative Learning:** ICT encourages interaction and cooperation among students, teachers regardless of distance which is between them. It also provides students the chance to work with people from different cultures and working together in groups, hence help students to enhance their communicative skills as well as their global awareness. Researchers have found that typically the use of ICT leads to more cooperation among learners within and beyond school and there exists a more interactive relationship between students and teachers (Grégoire et al., 1996). "Collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions, including learning and respect the abilities and contributions of their peers." (Panitz, 1996).
- **Creative Learning:** ICT promotes the manipulation of existing information and to create one's own knowledge to produce a tangible product or a given instructional purpose.
- **Integrative Learning:** ICT promotes an integrative approach to teaching and learning, by eliminating the synthetic separation between theory and practice unlike in the traditional classroom where emphasis encloses just a particular aspect.
- **Evaluative Learning:** Use of ICT for learning is student-centred and provides useful feedback through various interactive features. ICT allow students to discover and learn through new ways of teaching and learning which are sustained by constructivist theories of learning rather than

students do memorization and rote learning.

POSITIVE IMPACT:

1. Enhanced Teaching And Learning:

- Technological developments like digital cameras, projectors, mind training software, computers, Power point presentations, 3D visualization tools; all these have become great sources for teachers to help students grasp a concept easily.
- It has to be understood that visual explanation of concepts makes learning fun and enjoyable for students. They're able to participate more in the classroom and even teachers get a chance to make their classes more interactive and interesting.

2. Globalization:

- When school in different parts of the state, students can “meet” their counterparts through video conferencing without leaving the classroom.
- Some sites, such as www.glovico.com are used to help students learn foreign languages online by pairing a group of students with a teacher from another country.

3. No Geographical Limitations:

- With the introduction of online degree programs there is hardly any need of being present physically in the classroom. Even several foreign universities have started online degree courses that student can join.
- Distance learning and online education have become very important part of the education system now a day.

NEGATIVE IMPACT:

1. Declining Writing Skills:

- Due to the excessive usage of online chatting and shortcuts, the writing skills of today's young generation have declined quite tremendously.
- These days, children are relying more and more on digital communication that they have totally forgot about improving their writing skills.
- They don't know the spelling of different words, how to use

grammar properly or how to do cursive writing.

2. Increasing Incidents of Cheating:

- Technological developments like graphical calculators, high tech watches, mini cameras and similar equipment have become great sources to cheat in exams.
- It is easier for students to write formulas and notes on graphing calculators, with least chances of being caught.

3. Lack Of Focus:

- SMS or text messaging has become a favourite pastime of many students. Students are seen playing with their cell phone, smartphones day and night or driving and very often even between lectures.
- Being ever-connected to the online world has resulted in lack of focus and concentration in academics and to some extent, even in sports and extracurricular activities.

ADVANTAGES:

- It makes students more excited to learn.
- Help students with busy schedules, freedom to work at home on their own time.
- Train students to learn new technology skills they can use later in the work place.
- Decrease paper and photocopying costs, promoting concept of “green revolution”.

DISADVANTAGES:

- Many experts and experienced people say that, due to such technology in education, students' imagination is affected, their thinking ability is reduced.
- Sometime it's also time-consuming from teacher's point of view.
- It is costly to install such technology.
- There can be health issues too when used over limit.
- Some students can't afford modern computer technologies.

CONCLUSION:

Technology has a positive impact on education and at the same time may

also pose negative effects. Teachers and students should take advantage of this in the good light and eliminate the drawbacks which are pulling back many of students as well as schools from achieving excellence. It is thus time for every country to introduce a more technologically equipped education sector in the future.

The presence of educational technology is growing in the classroom. The new generation of kids come ready to work with these new technologies, which play an important role in children's learning and acquiring various cognitive knowledge so that educational technology must be incorporated into future curricula. The application of educational technology enhances skills and cognitive characteristics. With the help of new technology comes an explosion of learning and receiving new information, especially on mobile devices.

REFERENCES:

- Beringer, V. (2009, October 20) For kids, pen's mightier than keyboard. futurity.org. Retrieved February 25th 2013 from <http://www.futurity.org/society-culture/for-kids-pens-mightier-than-keyboard/#more-4909>.
- Bounds, G. (2010, October 5) How handwriting trains the brain-forming letters is key to learning, memory, idea. wsj.com. Retrieved February 25th 2013 from <http://online.wsj.com/article/SB10001424052748704631504575531932754922518.html>
- Bransford, J., Brown, A., & Cocking, R. (2000). How people learn: Brain, mind, experience, and school. Washington, DC: National Academic Press.
- Brill, J. M., & Galloway, C. (2007). Perils and promises: University instructors' integration of technology in classroom- based practices. British Journal of Educational Technology. 38(1), 95-105.
- Leising, J. (2013 January 30) The new script for teaching handwriting is no script at all. wsj.com Retrieved February 25th 2013 from <http://online.wsj.com/article/SB10001424127887323644904578272151551627948.html?KEYWORDS=handwriting>
- Roschelle, J., Pea, R., Hoadley, C., Gordin, D., & Means, B. (2000).

Future of children, 10(2), 76-101.

- Shah (2011, July 16) Why does writing make us smart ? huffingpost.com. Retrieved February 25th 2013 from http://www.huffingtonpost.com/2011/07/16/why-does-writing-make-us-n_900638.html
- Wenglinski, H. (1998). Does it compute? The relationship between educational technology and student achievement in mathematics. Princeton, NJ: ETS.