Modern Technology Improves Educational System
Sana Javeed

Lecturer at Fouji Foundation College, Kahuta.
nayabnuml@gmail.com

ABSTRACT

As we know that technology is a gift of God Almighty, after the wonderful gift of life it is conceivably the best of God's blessing. Rather we can say it is the mother of modern civilizations, of arts and all sciences. Use of technology has positively brought changes in the ways we live in this planet. The importance of technology in our education system cannot be ignored anyway. The present research paper discussed how the application of technology in education system has modernized and how technology has revolutionized in field of our education system. 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 remove the drawbacks which are pulled back many of students as well as schools from achieved excellence. It is thus time for every country to introduce a more technologically equipped education sector in the future.

Keywords: Modern Technology, Educational System, Schools, Teachers

1. Introduction

Earlier, technology in education was a debatable topic amongst society. Everyone had their own views on modernizing education and making it technology aided. There were a huge number of positives and negatives to education technology. But, gradually as technology was embraced by the educational institutes, they realized the importance of technology in education. Its positives outnumbered the negatives and now, with technology, education has taken a whole new meaning that it leaves us with no doubt that our educational system has been transformed owing to the ever-advancing technology. The use of technology has made the process of teaching and learning more enjoyable in early education the teacher use teaching methods as fun in learning like play way and kinder garden. It has also impacted different aspects of life and redefined the modern living style. The technology plays a significant role in every sphere of life. The use of computers in education is essential for the beginners; it has become easier for teachers to communicate knowledge skills in students.

Technology and education are a great combination if used together with a right reason and vision. There are innumerous instances till date where we can see the improvement in

education, once it embraced technology. I will state a few remarkable ones of them to provide you with a more realistic picture of the whole scenario. Here's the list along with the references to the originals: The Flipped Classroom: This popular technological approach has gotten to everybody's ears by now. It is a practice in which, students watch lecture videos as homework and discussion is carried on them in the class-time by the teachers. It has resulted in remarkably better student performance, with noticeable grade boost-up. Students can now learn at their own pace and save class-time for interaction. To go into more details about this approach refer to this article on Classroom. Effectiveness of technology on Mathematics for K-12: Technology has proved to be effective for making students efficiently adept with Math. Out of several, there are three remarkable technologies, which in my opinion should be brought to the light. Computer-managed learning is a program that uses computers to assess student learning on Math and assign them with appropriate Math material, which they

can work on to score and receive a chart of their progress for self-assessment; Comprehensive models such as Cognitive Tutor and I Can Learn use computer-aided instruction as well as non-computer activities for students to approach Math; Supplemental CAI technology consists of individualized computer-assisted instruction (CAI), to provide additional instruction at students' assessed levels. Findings indicate that educational technology applications produce a positive effect on Mathematics achievement. For details, refer to the review on Technology. Long-term research indicative of the positives of technology on learning: Researches have been performed to address to the question, does the use of computer technology affect student achievement in traditional classrooms as compared to classrooms that do not use technology? An extensive literature search and a systematic review process were employed and insights about the state of the field, implications for technology use, and prospects for future were discussed. Refer to the original review, Review of Educational Research. Educational Technology improves student learning outcomes: Evidence suggests that educational technologies can improve student achievement, so long as such tools are integrated thoughtfully into teaching and learning. When digital capabilities like online environments are incorporated meaningfully into instruction, students have new opportunities to learn and achieve. Refer to this research brief for details. The effect of technology on education depends on the design of instruction: The design of the instruction accounts for more variance in how and why people learn than the technology used to deliver the instruction. Educators and educational researchers should be encouraged to focus on determining how to better integrate the use of a given technology to facilitate learning, rather than asking if it works or if one is more effective than another. Refer to this report for a detailed study.

2- Topic of Research

To elucidate on the topic of this research paper, the researcher more than definite that technology improves education to a great extent and it has now become a need for revolutionizing education for the better. With technology, educators, students and parents have a variety of learning tools at their fingertips.

3- Research Significance

Teachers can collaborate to share their ideas and resources online: They can communicate with others across the world in an instant, meet the shortcomings of their work, refine it and provide their students with the best. This approach definitely enhances the practice of teaching. Students can develop valuable research skills at a young age: Technology gives students immediate access to an abundance of quality information which leads to learning at much quicker rates than before. Students and teachers have access to an expanse of material: There are plenty of resourceful, credible websites available on the Internet that both teachers and students can utilize. The Internet also provides a variety of knowledge and doesn't limit students to one person's opinion. Online learning is now an equally credible option: Face-to-face interaction is huge, especially in the younger years, but some students work better when they can go at their own pace. Online education is now accredited and has changed the way we view education.

4- Literature Review

Over the past years, a number of studies have shown benefits from the use of technology in education. The role of technology in education is vital, and the question is no longer if technology enhances learning, but rather how do we improve our use of technology to enhance learning? I

encourage you to think about more ways of how technology has improved education and how it can positively impact it in the near future. Feel free to share these views, additional knowledge or clarify doubts you may have on the relation of education and technology.

Technology is transforming education, changing how, when and where students learn, and empowering them at every stage of their journey. 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. Educators are always striving to personalize learning for students. Technology can help them reach new levels with access to real-time student data, longitudinal information, content, apps, and more. Technology can help educators create blended learning environments and leverage digital tools for formative and summative assessments, bringing new models for learning and teaching to classrooms

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.

5.1 Importance of technology in education

The role of technology in the field of education is fourfold: 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 I. 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 and 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.

Students today can make use of technology in the following ways:

5.1.1 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.

5.1.2 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.

5.1.3 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.

5.1.4 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.

5.2 Impact of ICT in 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:

5.2.1 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.

5.2.2 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).

5.2.3 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.

5.2.4 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.

5.2.5 Evaluative learning:

Use of ICT for learning is student-centered 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.

5.3 Positive Impact in Education

5.3.1 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.

5.3.2 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.

5.3.3 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.

5.4 Negative Impact in Education

5.4.1 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.

5.4.2 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.

5.4.3 Lack of Focus:

SMS or text messaging has become a favorite pastime of many students. Students are seen playing with their cell phone, iPhones 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.

5.5 Advantages and disadvantages in use of technology

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".

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.

6- 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.

References

10(2), 76-101.

25th 2013 from Shah (2011, July 16) Why does writing make us smart

and school. Washington, DC: National Academic Press.

and student achievement in mathematics. Princeton, NJ: ETS

Beringer, V. (2009, October 20) For kids, pen's mightier than keyboard. futurity.org.

Bounds, G. (2010, October 5) How handwriting trains the brain – forming letters is key to

Bransford, J., Brown, A., & Cocking, R. (2000). How people learn: Brain, mind, experience,

Brill, J. M., & Galloway, C. (2007). Perils and promises: University instructors' integration

http://online.wsj.com/article/SB100014241278873236449045 78272151551627948.html?KEYWORDS=handwriting

http://www.huffingtonpost.com/2011/07/16/whydoes-writing-make-usn_900638.html

huffingpost.com. Retrieved February 25th 2013

learning, memory, idea. wsj.com. Retrieved February 25th 2013 from

http://online.wsj.com/article/SB100014240527487046315045 75531932754922518.html

Leising, J. (2013 January 30) The new script for teaching handwriting is no script at all.

of technology in classroom-based practices. British Journal of Educational

pens-mightier-than-keyboard/#more-4909.

Retrieved February 25th 2013 from http://www.futurity.org/society-culture/forkids-

Roschelle, J., Pea, R., Hoadley, C., Gordin, D., & Means, B. (2000). Future of children,

Shah (2011, July 16) Why does writing make us smart ? huffingpost.com. Retrieved February

Technology. 38(1), 95-105.

Wenglinski, H. (1998). Does it compute? The relationship between educational technology

wsj.com Retrieved February 25th 2013 from