

Technology in Education

Mazyad Almutairi

University of South Alabama, Alabama, United States

Received: 03 May 2024; Received in revised form: 08 Jun 2024; Accepted: 18 Jun 2024

©2024 The Author(s). Published by TheShillonga. This is an open-access article under the CC BY license
(<https://creativecommons.org/licenses/by/4.0/>)

Abstract— *Technology has made education easier and less time consuming. It also allows students to go global. Making the student acquire knowledge from everywhere in the world. Saving place and time, it is the greatest goal of technology. Also, giving the student more time to get information from the globe anytime he wants without the need to be on campus or in the working hours of libraries. With the projects done by the instructor, the learning technique got more efficient. Students can collaborate with each other with no need of physical presence.*

Keywords— *Technology, Education, Teacher, Hardware, Software, Learning, Students, Projects, Economics, Online, IT, Textbooks, Notebook, Lessons.*

Technology is the sum up of different techniques, processes, skills, and methods used for the accomplishment of the goals and objectives and also in the good productions. Usage of technology in education is a very controversial issue nowadays. Some people think it is right to involve technology in education while some think that it is not good for students during education. Technology has a very vast and diverse role due to which it now becomes a basic element of every field even in education. Furthermore, it also has so much attraction that is why every person from child to adult likes to avail or use it for their desired purpose. There are lots of fundamental reasons behind the introduction of technology in education which includes depth of understanding, learning vs. teaching, expansion of time and place, collaboration, media for self-expression, weight, going global, personal productivity, individual pacing and sequence and lower cost. Technology in education has many advantages along with some disadvantages which can be solved with the help of proper management and solutions.

Technology in education provides a chance of deep understanding. Whenever there is a need for depth of understanding of a concept, illustrations and interactive simulations play a vital role. This can be possible with the help of projectors and virtual manipulatives. Through this, teachers can deliver and demonstrate concepts easily along with conductance of onscreen investigations instead of using chalk and talk or just arm waving and words.

Technology can make a clear difference between learning and teaching. Technology provides a chance of assigning projects to students that require learning of necessary material by themselves instead of teaching. In this way, students can get their desired information from anywhere or any time without the need of the physical presence of the teacher. This type of approach makes the learning process interesting and persuasive for the students. “The educational technology standards for teachers set by the International Society for Technology in Education (the ISTE Standards-T) represent an important framework for using technology effectively in teaching and learning processes. These standards are widely used by universities, educational institutions, and schools. (Simsek et al. 6)

Technology provides expansion of time and place. No doubt technology is not the alternative of a teacher, but the online materials available will prove to be very time saving for the students as they have only a few minutes of access to a teacher in a day while having full-time access to the internet. Book and classroom learning approach is limited while the access of course material through laptop and internet is not limited as it can be accessed from anywhere and is a more reliable, time-saving and appropriate approach. In short, it allows learning from anywhere and anytime without physical presence.

Technology provides a chance for collaboration. Skills of digital technology help in collaborative working on the projects with those who are not present physically. This can be achieved using the laptops, cell phone and computer

and their tools including internet, email, instant messaging, etc. In this way the need to work alone on any homework or project is diminished and small groups can work on it from anywhere without gathering at a place.

Technology in the form of media provides a chance for self-expression. Instead of old ways of writing things on notebook which is only accessible for teachers, modern technology help students to present their work in more appropriate way in the form of PowerPoint Presentations, words recording, video, digital photography, digital newspaper, digital music and through making and creating of websites and blog respectively that's why right hardware usage is necessary to achieve this. So, laptops are much better options than tablets because tablets cannot be used as laptops or computers are used as tablets are only used as electronic textbooks not used for project making.

Technology provides a chance of getting rid of weighty books. Normally textbooks along with binders weigh much more than any laptop computer. A laptop with a good amount of storage capacity provides a chance to store an infinite amount of material and access it easily at any time with just one click without being searched for textbooks. A 40 GB hard disk is enough to store almost 2 million pages along with illustrations.

Technology provides a chance of going global and social. Due to the zero cost of communication with different people around the world, the worldview of the students expanded. This becomes possible through different electronic devices having the internet facility. The video chats and conferencing give permission for real-time interaction with another college in other countries. So, it is important to understand other cultures through direct link and collaboration from an educational point of view.

Technology gives a chance to students for personal productivity. The electronic tools are necessary for the students as they can easily read, write, organize, communicate and schedule. The tools like laptops, computers, tablets, smartphones make the life of both students and teachers easy and effective. That's why it seems essential to introduce technology in education and make institutions paperless. In one of the studies, it is revealed after the research that there are significant differences in uses and ownership of most technological devices in favor of the US students in comparison to the Turkish students. The results of the study pointed to differences in information technology (IT) ownership and access, largely as a function of local infrastructure and economic settings rather than cultural diversities between Turkey and the US. (Tekinarslan et al. 6)

Technology provides an opportunity for individual pacing and sequence. This is so because all the students are

of different types, so technology permits these students to go at a pace and order what suits them better. One can easily explore what seems interesting and repeat difficult lessons without disturbing the class. No doubt with the passage of time these technology tools will become the private tutor and there will be no more need lost in the large class. Tenthly, technology helps in saving money as it lowers the cost. This is so because textbooks are very expensive and their cost is more than the tuition fee when students purchased them. The dependency on these paper textbooks can be minimized with the help of open and free educational tools on the web. This material will be created and published by different educational organizations, and then these materials can be shared freely after their creation.

There are certain benefits of technology in education which includes making of career, professional development, establishing of connection, easy teaching, progress in studies, enhance interaction, engagement, development of digital skills, improve knowledge retention, enhance learning abilities, provides ease and comfort, faster gain of knowledge, encourage individual learning, become more responsible and provide opportunities of learning. Educators often have the feeling that they are finding it harder and harder to reach their students. That is why they are so feverishly interested in smart boards or learning platforms or anything new on the market that might help. (De Bruyckere et al. 6)

Along with the advantages of technology in education, there are also some dark sides of it which will prove harmful to the education system. This includes immense expenditure, insufficient teaching method, time-consuming, transformation of learners into inefficient learners, sometimes misguides with wrong information, major and important source of distractions, increase the cyberbullying rate, make person lazy and create enough space for cheating, make disconnection with real world, challenging for the teachers, losing of assignments, difficult handling of online courses, deprived off students from good handwriting. Create a problem for low-income institutes and extinction of paper book reading. There are some solutions presents to minimize the effects of these disadvantages which includes making of cheap software, proper training of teacher, perform effort to minimize error, avoid of usage shortcuts, check authenticity of content on internet, avoid distraction by being focused and decrease cyber bullying, honest in assignment making, improve connections by good interaction at least once a week, proper knowledge of software and their upgradation to teachers, storing of two to three copies of assignment at different technological tools to avoid losing it at deadline, proper usage of high speed internet and network, do hand written assignments along with printed to retain good handwriting,

funding given to low income institutes to meet their technological requirements and read paper books along e books.

In short, there is no doubt that technology in education is a blessing and if the purpose of education is to gain knowledge and seek intellectual skills, then technology lies at the center or heart of it. To stand with this modern and technological world, everyone has to accept this transition and take advantage of it for better learning.

REFERENCES

- [1] De Bruyckere, Pedro. Kirschner, Paul A. Hulshof, Casper D. "Technology in Education: What Teachers Should Know." eds.a.ebscohost. American Educator, v40 n1 p12-18, 43 Spr 2016. 8 pp. 2016. Web. 16 Nov 2017.
- [2] Simsek, Omer. Yazar, Taha. "Education Technology Standards Self-Efficacy (ETSSE) Scale: A Validity and Reliability Study." eds.a.ebscohost. Eurasian Journal of Educational Research, n63 P311- 334 2016. 24 pp. 2016. Web. 16 Nov 2017.
- [3] Tekinarslan, Erkan. Kennedy, Eugene. Nicolle, Pamela S. "A Cross-Cultural Comparative Study of Uses and Perceptions of Technology in Education among Turkish and US Undergraduates." eds.a.ebscohost. Journal of Education and Training Studies, v3 n6 p71-82 Nov 2015. 12 pp. 2015. Web. 16 Nov 2017.