**Research Paper**

**How does technology impact learning in the elementary school classroom?**

**How does technology impact learning in the elementary school classroom?**

With the rapid advancement of science, people have found many ways to facilitate their basic needs. Technology has the most important role in this advancement. With the passage of technology made a prominent importance in people`s lives. There were many businesses and workplaces that do not require computers or they do not feel any need to use computers at their workplace, now using computers. Many people who do not have any knowledge about computers, now knows how to use a computer. Now, technology has become the need of every human being and it is facilitating people by providing ways social networking, web surfing, texting, interactive games and much more. Technology has a wide network of facilities that it provide people and makes them use to it. It started with providing people for communicating each other through email, it is growing ever since and with each passing year technology has defined many ways to facilitate people and become more easy to use and we are evolving into a technological society by depending on its use.

Education is the basic need of anyone. Whoever wants to succeed in life requires getting a reasonable education which will help him lead his life better. Using technology in education is the high priority of the time. Legislators, policy makers, and educationists are making new implementations and developing instructional practices to use technology in elementary classrooms. The increasing demand of technology in every walk of life has made it necessary to use that technology in schools. Many school teachers are now using internet resources to help students understand difficult concepts of science. Technology has also positive impacts on the learning of students by defining better ways to deliver mathematical concepts which have helped many students in understanding mathematics. The results have shown that students have shown a positive effect on achievement in all subjects in a technology rich environment. With technology in used, students attitude towards learning and their skills of self-concepts have improved as compare to the controlled environment where technology is not a part of educational learning.

Technology has made students more engaged, and students can retain more information about the topics they are studying in school. With the wide range of technological tools, the use of technology is spreading a friendly environment and results indicated that students like their classrooms more in presence of these tools. These tools include many educational software, games, and websites that provides simple solutions to subjects including mathematical concepts, reading, vocabulary learning, and science. This educational software have made students maximize their skills in these subjects and students have developed more interest in learning and also this software is easy to use and save more time than comparing the schools where technology is not a part of learning process. Students have an easy time learning a new concept and develop a positive attitude towards study when using technology in classrooms. Students like their classrooms more and technology provide opportunities to collaborate and learning from each other. These factors have led to positive impacts on student learning and motivations.

Technology integration in public school is the need of time, developing new ways to create a fun learning environment in schools. Another factor that technology is the major factor in improving education is it is an integral part of the everyday world. Each and every field of study, job, and research methodologies are using technology for better results. Students, as well as adults, are using technology to communicate with each other and getting information on daily basis. Using this technology in classrooms have made it easy for a student to develop an understanding of difficult concepts and made a strong connection between student and education. We are living in a technologically advanced world. Where every need of human is taken care of using technology and it has made things easier for teachers to help their students in an enjoyable learning process.

**Hypothesis Developed**

Hypothesis 1: “Using technological tools in learning process facilitate students as well as it plays a key role in education and it is important to understand that technology plays a dominant role in daily life” (Holt, 2015 pp. 1). We can see the prevalence of technology in every walk of life. Today People use more technological devices than it was used in past. Children, on the other hand, have a greater interest in new technology than they have their interest in studies. It is because of the facilities that technology provides with fun features. Technology can also provide these features if it is used in education and it is providing these fun features in the form of games which students can play and while playing can solve mathematical questions. There is software which also provides opportunities to students so they can interact with other classmates which make the learning process more engaging and healthy.

Hypothesis 2: “The most decisive factor in successfully implementing technology in classrooms are teachers” (Holt, 2015 pp. 7). This hypothesis was developed on the studies made by researchers through surveys that half of the teacher education graduates were not prepared to teach with technology in class. One can see that now classrooms have children from different cultures and teacher should aware of the cultural differences and as well as advocate the social justice in class. Technology is now common in every culture, training teachers to teach through technology is the key factor implementing technology in classrooms.

Hypothesis 3: “The growth of technology had progressed incredibly, and the inclusion of technology within the classroom has transformed education” (Holt, 2015 pp. 10). Through Elementary and Secondary Education Act in 1965, computers were incorporated in primary education. The reason developing this legislation was to educate children about the recent developments in technology. Technology has changed the way of education ever since it is brought into education. Projectors, laptops, digital printers and other devices has transformed and improved the communication between teacher and students.

**Research Method**

These hypotheses are developed on the basis of research surveys on the impacts of technology in elementary schools. Technology is growing by each day in every profession and it is important for a student to proficiently use this technology to compete in the field. With the implementation of technology in elementary schools, students now able to solve real world problems of computer science, math, communication skills and natural sciences. Additionally, in low-performing schools, with implementing technology in these schools enables the students to develop interest, skills, and experience in real world opportunities and career. Most of the students in low-performing schools came from the areas of the low poverty level and low English language skills. Their parents do multiple jobs to keep the both ends meet and educate their kids but they cannot afford the latest technology for their children. Implementing technology in these schools provided these students to have an exposure to technology and it supported these students to complete their assignments as well as provide them the opportunity to express their thoughts about their career (Koch, 2002).

Now, before students take exposure to this technological equipment, it is necessary for teachers to have full knowledge of using these devices. The teacher is the guide of students in class, he should be able to make students understand how they can use this technology for their betterment. Technology is advancing by each day, each day we can see that some new educational device came in market. To teach the students about these devices teachers should have necessary skills.

**Research Analysis**

Technology has always influenced how people interact with nature. The usage of this technology has made people confident about the task they are doing either they are working at the office or it is some household chore. People are constantly influenced by technology and its rapid advancement. The research analysis is based on the study of problems faced by students in education. Most of the students have had problem understanding concepts of mathematics. It is not because of the teacher that students are unable to learn these concepts but it is the way mathematics have been taught in schools for centuries. Technology could be anything that can aid the daily life. A game developed by a computer scientist and its purpose is to help students understand the concepts of mathematics. And results have shown positive results and also students gained their interest in the subject. These facilitations technology providers have maximum impacts on education in elementary classrooms (Bhagat, 2015).

Although, the research conducted on the topic in question has certain limitations. First, schools who are sung technology in elementary classrooms have fully trained teachers. Second, the research shown positive impacts of technology in schools have been conducted on students who have been using technological devices at home and they are happy to use these devices at school. Most of the low-income areas, public schools now introducing technology in classrooms so children can have some know-how on using technology to develop an understanding of the subject he has been studying in class (Herron, 2010).

Today, people unknowingly rely on technology, they keep their work on hold because they know they can use some software of some computer application to do it faster. These applications have incredible impacts on human behavior. People are more interested in using technology than they work manually or by not using any technical help. Technology has its root deep in human life that no one can notice that they are dependent on technology. This is the core reason for conducting the research on its implementation on education. In this technology dependent life, students now should be able to use this technology for a better understanding of how to use this technology for good. There are some ethical issues on how these technologies have been used in classrooms. Students should not be allowed to use technological devices without an instructor. And it is the ethical duty of instructor that he makes a plan on how he will be using technological devices to make students understand better the concepts he wanted to teach them (Koch, 2002).

**Applicability of Research to Professional Practice on Psychology**

Today, psychologists provide decent advice about strategies and new techniques in professional practice. Technology has obviously impacted on learning in elementary classes. Convenience matters most, everyone wants to finish his work in half-time and wanted to save his energy. Technology has many positive impacts on the learning process that psychologists should that using technological devices in schools is reasonable. Some of the positive impacts are as under.

* Learning mathematics is the most difficult jobs for elementary level students, students find it difficult to memorize the rules of mathematics. But they do not have to memorize the rules to understand mathematics. There are software and games made especially for this purpose so children can understand mathematics easily. These games and software have programming set up in a way that students will learn mathematical rules by just playing the game in class (Bhagat, 2015).
* Using technology in classrooms makes students understand the problem and makes them able to solve the problem more creatively. Technology also makes them understand the difficult concepts of the different subject other than mathematics and they can make the connection between what they are learning in class and real world applications (Herron, 2010).
* It has been found that technology made students engage in the learning process, using technological devices helps them fully understand lessons and also helps them to connect and retain information. Technology also helps students to communicate with the instructor and can directly assist their instructor in class as well as outside the class.
* Technology has benefits in providing good educational skills to students but also it develops socio-emotional growth in students as well. Students become vigilant as their participation is mandatory in class and using technological devices students become more autonomous. Students not only learn the necessary education but also develop skills that he can use in practical life.

**Conclusion**

Although, technology has its impacts on human life and it has made humans dependent on its use but on the other hand, humans are the one who is behind its advancement. Implementing technology in the learning process is the need of time and it has many positive impacts on students. Technology is the basic need of life today. People are surrounded by electronic gadgets and technological devices around them and these gadgets and devices are becoming more and more advanced every day. Companies who make these devices are more interested in how they can more facilitate their users and it is useful to apply these devices in education for better learning and fruitful outcomes.

**References**

Herron, Julie (2010). Implementation of Technology in an Elementary Mathematics Lesson: The Experience of Pre-Service Teachers at One University. [WEB] Retrieved from: <https://eric.ed.gov/?id=EJ948684>

Holt, Kathryn (2015). The Impact of Technology on Primary Education. [WEB] Retrieved from: <http://digitalcommons.csumb.edu/cgi/viewcontent.cgi?article=1482&context=caps_thes>

Bhagat, K. Kumar (2015). The Impact of Flipped Classroom on Mathematics Concept Learning in High School. [WEB] Retrieved from: <http://web.b.ebscohost.com.library.capella.edu/ehost/pdfviewer/pdfviewer?sid=39ae7982-2a14-45e2-906f-736a21264d34%40sessionmgr104&vid=0&hid=118>

Koch, Janice (2002). Design Technology in the Elementary School – A Study of Teacher Action Research. [WEB] Retrieved from: <http://scholar.lib.vt.edu/ejournals/JTE/v13n2/pdf/koch.pdf>

Costley, C. Kevin (2014). The Positive Effects of Technology on Teaching and Student Learning. [WEB] Retrieved from: <http://files.eric.ed.gov/fulltext/ED554557.pdf>