USE OF TECHNOLOGY IN TEACHING

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"Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important."
- Bill Gates

Abstract

We have so many electronic devices to teach in the classrooms these days i.e. (PPTs), iPods, YouTube channels, smart classrooms, online web-based education sites, etc. However, there is a particular issue that the majority of decision makers in the education sector agree upon.It is important that institutions should have the latest types of equipment and softwareto deliver advanced teaching and learning tools. It is motivating and encouraging for students as well as for teaching faculties for their successful future. Teachers and students became more familiar and friendlier with the latest technology and gadgets during this epidemic time.

Introduction

Today's generation who have grown up in an immense technology environment so they are more at ease with it. Where only a notebook and pen are required as a tool kit earlier, now students come to class loaded with smartphones, laptops, and iPods. This era of technology which is available everywhere at every level has significant support foreducation.

Researchstatesthat new innovationsin technologywill have a high impact on teaching methods over the next few years. This new learning technology makes students gain constructiveand practical knowledge as per their ability. Due to these facilities'distance learning with online degree programs increased in major folds in universities across the globe.

The latesttechnologies are also affecting different areas on day to day basis.Social networking sites and institution websites supportconnecting with students, teachers, non-teaching staff, administration, and alumni. They are also helpful in career service activities like recruiting and fund-raising efforts these facilities are not only quick and prompt but also cost-effective.These sites are fully equipped, having all information of school/colleges/universities which not only reduce the administration work, and time but also require a lesser number of employees. There are also several challenges like insufficient resources, incompetent technical staff or inadequate instructional design staff,and other technical support issues that can also be the hurdles forthe adoption of new technologies. Despite all challenges, everyonebelieves that technology is now an indispensable part of institutes and academicians.Education institutions are providing ICT-enabled education to our students but in most cases, educators are much more capable to operate these technical devices. But there is still a challenge for non-teaching staff at the administration level for using these technologies.

Need forTechnology in Classrooms

Technologies are very supportive to prepare students for their future careers.

- ✓ Effective way to connect with students of all learning styles.
- ✓ Provide the opportunity to enhance the interaction with their classmates and instructors by encouraging collaboration.
- ✓ Given the opportunity to teachers to develop their student's digital citizenship skills.
- ✓ Helpful to engage the students in education with the help of technology.
- ✓ New technology can enhance the learning experience and create new opportunities.

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- ✓ Useful to access the most up-to-date information quicker and easier than ever before.
- ✓ With the help of technology, the traditional passive learning model is broken. With technology in the classroom, the teacher becomes the encourager, adviser, and mentor.
- ✓ Technological devices give the opportunity to students to improve their decision-making skills.
- ✓ Technology empowers students to be more creative and more connected. New tech has supercharged how we learn today.

The above facts reflect the need for technologies in our classroom to learn effectively in an educational setup. So, we cannot avoid the role of technology in our teaching-learning process.

Technology Enabled Classrooms

We know that advanced technology is enabling multi-model teaching, changing curriculum, and spawning rich forms of online research and collaboration. Teachers will soon be able teach in more than one medium looking to the current scenario of research in this field. Sophisticated learning-management systems and enhanced video and presentation tools are among other innovations that respondents say are likely to have a profound effect on the academic experience. It is interesting to note that despite the growing array of technology-enabled teaching tools available, nearly three-quarters of participants say that the greatest potential benefit of technology is something far more straightforwardforwardnamely, the expanded access to educational and reference resources that it provides.

The Effective **Use of Technology** in Education has changed the face of education and it has created more educational opportunities. Both teachers and students have benefited from various educational technologies, teachers have learned how to integrate technology in their classrooms and students are getting more interested in learning with technology. The **use of technology in education** has removed educational boundaries, both students and teachers can collaborate in real-time using advanced educational technologies.

Technology has helped in the growth of mobile learning and long-distance learning. The use of Internet technology has enabled teachers to reach students across borders and also students from developing countries have used Internet technology to subscribe to advanced educational courses. Many universities and colleges have embraced online education by creating virtual classrooms. Online education is flexible and affordable, students can attend classrooms during

their free time, and they can also have a chance to interact with other students virtually.

Recent advancements in educational technologies have yielded positive results in our education sector. This new educational technology is supporting both teaching and learning processes, technology has digitized classrooms through digital learning tools like, computers, iPads, smartphones, smart digital white boards; it has expanded course offerings, it has increased student's engagement and motivation towards learning.

Technology in Classrooms:

★ **Educational without Boundaries**

This pandemic made the technology supports the Virtual or Online Learning at different levels. No need of physical classrooms, online learning is flexible and students from different geographical locations can attend the same class with no need of traveling from those locations. Advancement in virtual technology has supported face-to-face communication between students and teachers in the virtual world.

★ **Access to Open Educational Resources with Technology**

Educational technology helps students gain access to open educational resources. These resources are kept under the public domain and are freely available to anyone over the world-Wide-Web i.e. NROER etc. These educational resources include electronic books (e-books), pod-casts, digital libraries, educational games, educational videos and instructions, tutorials and much more. Teachers have embraced video hosting platforms like YouTube, to upload recorded lectures, so that students who missed lectures can access them from anywhere.

★ **Motivates Studentsthrough the Technology**

The use of educational technologies has increased students' interest in learning, teachers use educational puzzles and video games to teach students how to solve different academic challenges, and this all process makes students love to learn.

★ **Easy to Learn**

Different types of educational software are designed to help students learn various subjects easier. Many students complain that learning Chemistry, Physics, and Math is difficult, so some of them have decided to use educational Math software like BrainingCamp. Students can use BrainingCamp to apply their Math knowledge and skills to solve different math equations. BrainingCamp.com makes learning math very interesting.

★ **Emphasis on Individual Learning**

Technological tools like cell phones and the internet give students an opportunity to learn by themselves. Many students prefer teaching themselves and discovering content bythemselves, this process allows them to test various options to solve a given task at school. Students use interactive educational games and software to develop different academic skills.

★ **Instructions on the basis of Student's Strength**

Teachers can use technology to cater for each and every student's needs in the classroom or outside of the classroom. The use of classroom assessment software and performance tracking programs helps teachers plan for each student based on their performance and learning capabilities. Teachers can be in a position to classify students and know their weakness and strength as far as education is concerned.

★ **More Collaboration between Teachers and Students**

The use of advanced communication technologies in education helps teachers reach their students easily and it also helps students reach their teachers or fellow students in real-time. Teachers can use mobile texting applications to text students about an upcoming test or to assign them research topics. Educational social networks like ePals.com connect students with experienced educators; social bookmarking sites like Pinterest.com help students collaborate and follow creative teachers and educators from around the world. This flexibility in interaction and communication between teachers and students helps shy students improve on their grades.

★ **Useful for Tomorrow's Technological Jobs**

Students use computers in the classroom to develop creative applications which can be used on cell phones or tablets for educational purposes. The advantages of knowing how to use a computer are limitless, so the more time the students spend using various technological tools at school, the more experienced and creative they become. So, the use of technology in education prepares our children for tomorrow's advanced working conditions.

★ **BringInnovation and Creativityto Learners**

Many teachers have discovered that integrating technology into their classrooms increases student engagement in the classroom. So now, they put up technological competitions where students can make small educational technologies like robots, smart pens, mobile applications and much more. These technological competitions in schools have increased the level of creativity and innovation among students. Technology teaches students how to solve challenges and get ready for more difficult tasks in life.

Technological Devicesfor Teaching-Learning Process

The following few technologies can be used by teachers and students to bring creativity and innovations tothe teaching-learning process. After the use of these latest technologies, teachers and learners can achieve their educational goals.

- **Computers**

Teachers can **use computers** to illustrate visual-related subjects which helps students to learn easily. Modern computers come with installed applications that can help students' study well. For example, students can use internet explorer to search the internet, they can use word processing applications to write notes.

- **Websites and blogs**

It is very easy to create a website or blog online. Teachers can create class blogs when they post the assignments to learners. If the school has no website sever to host these class blogs, the teacher can use free website hosting services like wordpress.com or blogger.com. Via these platforms, the teacher will create a blog under a subdomain of that host.

- **Mobile devices**

Teachers and students can use smartphones for academic purposes in the classroom. Mobile learning is becoming so popular.   Mobile phones are very light yet they can also have the same application a simple PC can have; a student can access academic information like assignments via an educational mobile application. It is similar to e-learning or long-distance education. M-Learning is convenient because it is accessible from anywhere.

- **Smart Interactive Whiteboards**

Modern smart white boards have touch screen functionality, so the teacher can illustrate points using a pen or their finger. Using a projector, teachers can display visual images on these white boards which improve the learning process. Students will learn more easily with visual images. Also, students can use a white board to draw, write or manipulate images.

- **Digital Microphones**

The microphone will transmit the voice to the loud speakers and every student will hear their teacher clearly. This helps the teacher not to strain their voice while trying to explain points to their students. These digital microphones are not too expensive so even a small income generating school can manage to buy a wireless microphone for every classroom.

- **Online Media**

Online media is very effective to illustrate the picture with sound effects. Teachers and students can both use online streaming Media to learn in the classroom. With the aid of a projector, computer, internet, and a whiteboard, a teacher displays a real-time example using sites like **Youtube.com.**

- **Amplify Tablet**

Amplify is dedicated to collaborating with educators to create learning experiences that are rigorous and riveting for all students. Amplify creates K–12 core and supplemental curriculum, assessment, and intervention programs for today's students.

- **TI 84 Plus–Graphing Calculator**

Science students will find this Graphing Calculator very important, especially during physics and math lessons. This TI-84 Plus has many built-in functions which every high school and college student will need. Its programming capabilities can do more than what you expect. It's very easy to use and its programmed formulas and equations can save you lots of time.

- **WhiteSmoke**

It is a software product for writing, language, grammar checker, spell checker, style checker and more - in a single package.Students who have issues while writing or speaking the written matter. This software takes care of all the above issues. This software is different from other software forthe same purpose due to its easy-to-use features.

- **HomeworkHelp.com**

Homework help is for students struggling with a concept or skill they're working on in class, often as part of a specific assignment. These one-off sessions provide help when students are stuck, so they can move forward in the school year with the background they need.Student always have busy schedules, they have to work at a part time job, do house work, do extracurricular activities, interact socially with friends, and so much more. With all these tasks, you will always feel relaxed and tired when it comes to completing your homework. Homeworkhelp.com has over 3,000 learning modules in essential subjects like math, science, social studies and English.

- **Chegg**

It is an American education technology company. It provides homework help, digital and physical textbook rentals, textbooks, online tutoring, and other student services.

- **High School Success Deluxe**

It is ideal for all learning levels; High School Success Deluxe can teach you algebra, writing skills, chemistry, history, biology and foreign languages. It comes with over 2000 exercises which you can use to improve your academic skills.

Different WEB Based Technology

- **Tutor**

This platform has many experienced professionals who can help to solve anything. A dedicated tutor will help to solve the problemsof homework on a step by step basis, until our homework assignment is complete.

- **Time toast**

Students can use Timetoast.com to create web based timelines. We can create timelines and share them with our friends at school. It is basically a social sharing platform which can be used in so many ways. For example, we can use it to share field work photos with our friends via your timeline.

- **Bubbl.us**

Students can use Bubbl.us as a mind mapping tool, mind maps can help students organize their ideas and work. We can create our own mind maps, share them across top social networks or embed them on our personal blog or classroom blog.

- **Scribd**

Students can use Scribd to publish their own articles online. Scribd.com is a digital document library which can allow students to publish academic documents, discover and discuss on various educational documents. When it comes to making personal research and individual learning, we recommend this platform. Educators and experienced people across the world upload educational documents which you can download and read using your cell phone.

- **Today'sMeet**

Students can use this Today'sMeet to create virtual chat-rooms which we can use to communicate with our fellow classmates. This educational communication technology will help us interact with our classmates from anywhere.

- **Refseek**

RefSeek is a web search engine for students and researchers that aims to make academic information easily accessible to everyone.Refseek cuts out all the mess in search, they eliminate sponsored results and put more focus on providing educational data, though most of this data is provided by Google.

- **iEarn**

Since 1988, iEARN has pioneered on-line school linkages to enable students to engage in meaningful educational projects with peers in their countries and around the world.iEARN is a non-profit organization made up of over 30,000 schools and youth organizations in more than 140 countries. iEARN empowers teachers and young people to work together online using the Internet and other new communications technologies. Over 2,000,000 students each day are engaged in collaborative project work worldwide.

- **Wikispaces**

Use Wikispaces.com to create free online portfolios. As a student, create wiki pages and feature of our educational experience, pictures, videos, web links and ideas. It is very easy to edit and update a wiki page. WIKISPACE.COM is an educational platform which hosts independent wiki's for teachers, students, schools and universities.

- **Vocaroo**

We can use Vacaroo to record podcasts which we can share with classmates. This website can enable usto record podcasts live from their website then the recorded audio can be sent to us via email, we can embed it on a classroom blog.

The above technological devices and web-based learning sites are very useful to bring the competency in our teaching. These devices are very helpful to learn the concepts effectively. In the words of Nancy Kassebaum- *"There can be infinite uses of the computer and of new age technology, but if teachers themselves are not able to bring it into the classroom and make it work, then it fails."*So, a teacher should be skilled in technology and competent to use effectively during teaching-learning process.

Conclusion

In short, we can say that technology is a great way to utilize learning. In our institutions, we are providing laptops, desktops, tablets, iPads, and Bluetooth keyboard. Our students are using these devices every day in classes. They use online textbooks, apps, and Google to enhance our learning. Also, Google makes everything easier, because everything is connected- multiple people can edit one document, Google Classroom can be used to post and collect assignments, etc. Notes can be taken much more quickly as well since handwriting takes much longer than typing does. It really helps them and made learning more convenient.

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