

FACILITATING AND ENHANCING LEARNING

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Abstract

We have been using technology so much these days in each and every domain of our lives, be it education or the regular household work, that have we ever taken out a second to wonder if it's leaving a positive impact on our work or it's just that we have been relying too much on it that we've become habitual to it, ignoring the direction of its impact? Say for instance, is technology causing education to improve over time or have we just been catching up with the trend of educational technology. Earlier, technology in education was a debatable topic amongst the 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. Technology and education are a great combination if used together with a right reason and vision.

Keywords: *Modernizing education, Technology, Teaching and learning.*

Introduction

As we head into this new year I'm excited about the many instructional means and methods that educators are using technology to facilitate in 2014's classrooms (*both physical and virtual!*). As the 2nd decade of the 21st century rolls along, the scales are undoubtedly tilting further in favor of embracing the benefits that technology can bring to instruction, and away from frustration and resistance. Let's explore some of the powerful instructional approaches that technology is helping to make possible, or bring to a new level, in classrooms and schools across the world. In public and private schools of all shapes and sizes the world over, inspired teachers are working with their students using different types of devices, and various methods of access, to use teaching and learning constructs like these. All of these will see expanded use in 2014 and countless students will be engaged, delighted, inspired, and successful as a result.

Student Created Content

The powerful moment when a student shows you something they made for an assignment - a persuasive presentation, a digital booklet, an animated report, a video they shot - is tremendously rewarding. The things that just about anyone with a little time, patience, and access can do with the today's digital tools are pretty incredible.

Think about what students learn and experience when they create their own digital content. They often have to access and curate materials and put together a flow or layout. They have to delve into the subject that they are creating the content about and learn the

application they're using to create it. When they are done and they share their work, their sense of accomplishment and purpose can be a beautiful thing to behold. And they can experience it over and over again as they share their work with others!

Collaborative Learning

Working collaboratively is a vital 21st century skill - most workers need to collaborate to some extent or another at points in their work lives. Our ability to collaborate via digital tools expands every day thanks to a seemingly endless array of Internet based applications that enable us to do things like edit documents as a team, communicate face-to-face no matter where we are, use interactive whiteboards that allow for simultaneous edits, and so on. Digital collaboration in learning activities is not only a fun, engaging way to learn, it opens up possibilities that haven't existed before, and prepares students for success in the evolving work place.

Active Learning

While everyone has their own learning style, there is no arguing that applying what you learn - doing something with it - helps to iron out the kinks and reinforce learning, no matter what your fundamental learning style is. Isn't that much of what Active Learning is about? Whatever types of active learning you pursue (Project Based, Experiential, Constructivist, Experiential, etc.), there are countless free tools available to today's student and educators via the Internet that can be used in active learning class work and assignments. Get engaged, have fun, and create something while you apply what you are learning!

Personal Learning Networks

While the PLN would seem better suited towards older students, the fact is that when kids engage with each other via social media sites like Instagram or Snap chat, they are using and evolving their own Personal Learning Network. The idea of taking this to a higher level by purposely creating knowledgeable experts in fields of interest should be encouraged as students work through high school and even more so throughout their higher education experience. Combining the ease of access via the Internet with the wealth of available expertise and the fundamental concept of 'networking' makes today's PLNs rich with rewarding, interactive learning and collaborating possibilities. Teachers are benefiting more from Personal Learning Networks every day as well.

Mobile Learning

Mobile Learning has never been more ubiquitous and empowering than it is today. As the world's population embraces the power, availability, and wide spread use of the smart phone, the tablet, and emerging devices like Google Glass and other wearable technology, we have information at our fingertips (and other sensory interfaces) in ways barely imaginable in the past. Teachers and students are benefiting from this every day, and it is encouraging to

know that when educators create digital content, the likelihood of it being available to a student anytime, anywhere is very high.

Competency Based Learning

How cool is this? If you can prove that you know something, you can get credit for it, and move on to a higher order of learning! Adaptive learning technologies have made competency based learning one of the most exciting evolutionary steps in the learning process, and the awarding of credentials, in centuries. This concept can be applied in day to day learning using a growing array of adaptive learning tools like Moby Max. How the concept will be applied to degree completion is being vetted at a higher level by forward thinking higher education institutions like Western Governors University, while the US DOE and regional accreditors wrestle with how competency based learning will fit in with accepted institutional accreditation practices.

Social Learning

Bandura's Social Learning Theory posits that "people learn from one another, via observation, imitation, and modeling". This holds for digital networking as it does for traditional face-to-face social interactions. Many of today's digital learning tools and techniques incorporate a social element. While we want all students to develop the confidence to speak up in front of others, being able to 'raise a hand' via digital communications can be a first step for the shyest of students. Additionally, while we need to continue to emphasize to our students the importance of direct human contact, it's hard to deny that the reach of Internet empowered social networking is pretty amazing. You can tap into leaders in every industry, and easily connect with countless professionals in any field. The learning and sharing opportunities are endless.

Flipped Teaching and Learning

This targeted use of blended learning techniques has been gaining steam in the media this year, with new stories almost every day about teachers and schools who are trying it out. Flipped instruction has so many potential benefits, it just makes sense. Hopefully educators continue to embrace it and brush off the unfortunate tendency the media has to try and paint new ideas as nothing more than 'trends'. Flipped teaching really isn't a new idea - it's a repackaging and relabeling of many existing known and accepted teaching methods and ideas, and that's a good thing.

Information and communication technology and learning enhancement

The ICT has enhanced the use of knowledge and sharing of knowledge in the field of education. In the present educational scenario, the educational system faces multiple challenges in meeting the needs of a learner. Especially, when a computer is linked to the Internet, it can change the regular classroom activities completely. This technology will improve

the quality of teacher training & the teaching profession too. It is not to be considered as only a technology but every teacher must use ICT to the maximum for the benefit of the learners in transferring information. The teaching learning objectives are easily attained if a balance is maintained among the teacher, learner, content and teaching learning materials in a class room teaching. Therefore, a teacher has to restructure his teaching activities, concepts of the lesson and TLM's correctly. ICT serves as a bridge to the learners to achieve their learning objectives. It prepares them as eligible students to face the information oriented society in future. In this computerized environment, cost effectiveness is an important factor. Much progress can be achieved in education if more time and effort is spent in linking the teaching methods, curriculum, evaluation and innovative activities with the Information and Communication Technology.

Uses of information and communication technology

- The primary objective of Information and Communication Technology is to transform the teacher oriented education to student centered education.
- This technology does not change the teaching methods or teacher learner concepts. It is used as a spare for the enhancement of real learning experiences.
- ICT is divided into three categories based on its special features. They are Subject, Aspect and Medium.
- It serves as a tool for school organization and management.
- Though it is not directly linked with learning, it provides an additional support in the classroom and school level learning.
- While learning the fundamental truth of information technology, this technology becomes a subject. (ie) Computer Education Training in the school curriculum. If ICT is used in education, it is known as aspect. It refers to the technical education. Ex: Arts related computer training, manufacturing and calculation through computer.
- Learning becomes easy when any lesson is taught by using these Technologies: Experiments in Science subject in Higher Secondary Classes.
- The main objective of 'Aspect' in Information and Communication Technology is to prepare the students for professions.
- ICT serves as a teaching medium for the teacher when teaching and learning medium for the students while learning in the classroom.
- ICT is used as a medium in many ways. They are Drill and practice exercises, Simulation, Individual learning systems and Educational Tele Network. A teacher should prepare himself to use the Information and Communication Technology as a medium. It serves as one of the steps of teaching and one of the methods of teaching profession.

Multimedia Usage

Texts, Graphics, Art, Sound, Animation and Pictures are combined and presented through computer or in any other electronic device in a multimedia. The combined presentation of many medium for teaching is called multimedia. Software packages, tools and simple media (objects, models, pictures, charts, maps and diagram) can be used to explain a single concept or idea. Use of many medium in teaching enhances not only the skill of learners but also the skill of teaching.

Tools of Technology

The instruments which enhance the learning experiences come under Technology of Education. The ultimate aim of educational technology is to attain the learning objectives in a short period in its designing, application and evaluation. The following technologies are used in education:

1. Hardware technology.
2. Soft ware technology.

Technology in Education

Using of technological instruments for teaching and learning is known as Technology in Education.

Instrumentation Technology

By using the properties of magnetism and engineering, various electrical equipments are prepared for teaching. This is called as Instrumentation technology. Example: Over Head Projector (OHP), Tape Recorder, Radio, Television, CCTV, Computer are the equipments of instrumental technology.

Technology of Education

Technology of Education consists of Psychology related concepts, methods of retaining students' attention, application of methods, attaining teaching objectives and immediate reinforcement usages.

Software Technology

Software technology equipments are prepared with the help of hardware technology. New inventions in technology are the result of development of knowledge. The Learners' behavior can be modified if the psychological theories are integrated in the preparation of Software Technology.

Example: Text books, Newspapers, Pictures, Video pictures, Radio lessons, Recorded news, Films and Film strips are prepared on Psychology based concepts.

So, all these materials come under Software Technology. Preparation of teaching equipments has become essential because of increase in population and abundant development

of technology. The designing of teaching equipments must be suitable for teaching and information oriented.

Five Important Reasons for Teaching:

1. Motivation of students.
2. Active participation of the learners by using visual and activities based technology.
3. Good rapport is maintained by the transformation of effective information.
4. Students' contribution in Teaching-Learning activities.
5. Healthy feedback.

The equipments in educational technology help the learners in effective learning. It should develop knowledge, retention, capacity, motivation, comprehension, interest in learning and widen the acquired knowledge. The use of technology in education enables to improve all types of teaching methods and enhances students learning outcome.

Uses of teaching/learning technological AIDS:

- It stimulates the interest of the student in learning by active participation.
- It helps to realize the real characteristics of the teaching concept.
- Each activity helps in concept formation.
- It stimulates planning and experimentation.
- It enhances learning process and helps retention ability among the learners.
- Self learning gives real experiences and develops self-confidence.
- It paves way for the stimulation of continuous concept related thoughts for knowledge.
- It registers pictures in mind (mind mapping on concepts) and helps to recollect correct information.
- It helps to motivate the learners in their activities physically and mentally.
- It helps in effective learning in a short time.

Conclusion

As we become increasingly supported by ICT, teaching and learning will not be the same as before. We will have to make use of the rich and exciting opportunities offered by the new technologies in education to reach our training goal and mission. One of the objectives of the present paper is to provide better understanding and appreciation of the role of ICT in teaching and learning system. Several view points of integrating ICT in teaching and learning system has been discussed. Learning is not a transfer of knowledge, rather an active construction. This paradigm shifts give the learners a completely new role that was not earlier described in the transmission model of teaching. Technology and teacher professional development in its use are best introduced in the context of broader educational reform which embraces a shift away from teacher-centered, lecture oriented towards learner centered, interactive and constructive learning environment. Multimedia and ICT can play the role of

catalyst for such educational reforms. Multimedia courseware can promote effective instruction that is more engaging; learner centered, interdisciplinary and more closely related to real life events and processes and adaptive to individual learning styles and needs. It also encourages higher order thinking skills and help to construct knowledge socially. Thus teacher professional development in the use of interactive technology should embody and model the forms of pedagogy that teacher can use themselves in their classroom.

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