LEARNING TECHNOLOGIES

Radhika Kapur

ABSTRACT

This paper highlights information about technology, how the usage of technology has had high impact over the work assignments in all kinds of institutions and organizations such as schools, companies etc. What are the kinds of technologies that have been in utilization in the present world; assessment and evaluation procedures; main emphasis has been laid upon the fact that how technology influences teaching-learning methods and how it has proved to be advantageous to the community.

***Keywords**: Teaching, Technology, Assessment, Evaluation and Skills*

INTRODUCTION

In the present world, education and learning is undergoing immense transformation through the emergence of new methods, instructional techniques, procedures and technology. The main reason that is behind this transformation is universities and other educational institutions respond to global, social, political, technological and learning research trends. Currently, the duality of theoretical which consists of new models of education, advancement of social learning theory, and technological which includes e-learning, mobile devices, learning networks and revolutions offers prospects for transformative change in teaching and learning (Siemens & Tittenberger, 2009).

Earlier learning used to take place mainly through reading books; the techniques that were utilized within the classrooms were blackboards, charts, maps, flashcards and so forth but in the present world, there has been emergence of technology and it has become prominent in carrying out all assignments. The participative web, mobile phones, social networking services, tablets, laptops, audio-visual devices and net books have given individuals greater control over information creation and distribution. Information services like Google Search, Google Scholar, GPS-enabled devices, and e-books, are improving access and communication for learners. Technological innovations in bandwidth, storage, processing speed, and software directly influence education, creating new opportunities for interactions between the learners and learners and educators (Siemens & Tittenberger, 2009).

TEACHING WITH TECHNOLOGY

When the educators are imparting instruction to the learners using technology; this technological model proves to be effective for those individuals who possess high technical skill or an interest in innovating and reforming teaching practices. There have been many principles and advantages of using technology in teaching and learning:

1. Encourages communication between students and faculty members
2. Develops mutual aid and teamwork among students
3. Promotes active learning
4. Gives rapid feedback
5. Emphasizes upon time management
6. Communicates high effectiveness
7. Respects diverse talents, backgrounds and ways of learning

Besides the above stated factors, the educators should know how to effectively handle technology, how to integrate it into teaching activities and being contented in working with technology. Sometimes educators as well as learners are not comfortable working with technology and feel apprehensive (Siemens & Tittenberger, 2009).

DEVELOPMENTS IN E-LEARNING TECHNOLOGIES

E-learning provided a whole new meaning to distance education, with this technique the transfer of knowledge and information to the learners became very manageable. E-learning allows individuals to distribute and administer knowledge and skills of the professionals who are employed in colleges, universities and other educational institutes; they get the right information to the right people at the right time, in other words, through e-learning experts come to know when and how do they need to provide information to the learners (Carabaneanu, n.d.).

1. Mobile Technologies – There have been emergence of mobile technologies and learning solutions and services have been effectively integrated into them. Mobile phones, PDAs, digital pen, smart phones are the latest mobile technologies that have come into being. In the United States, the PDAs have already been used in schools and for individuals who are travelling or mobile, this has had significant results in terms of improved learning effectiveness. In Europe, mobile learning is beginning to extend, and telecommunications companies such as Nokia and Vodafone have already integrated these technologies into their training and development systems.
2. Simulations in e-learning process – Simulations have played an imperative role in the training and development activities of certain sectors such as defense, aviation and aeronautical industries in several countries. With the impact of simulation technology, technology and cost barriers are beginning to minimize. Computer

technologies have become omnipresent and there has also been emergence of simulation development expertise.

3. Adaptive Learning Environments (ALE) - A learning environment is regarded as adaptive if it is competent in: scrutinizing the activities of its users; understanding these on the basis of domain-specific models; gathering user requirements and preferences out of the interpreted activities, adequately representing these in associated models; and, finally, operating upon the available knowledge for the benefit of its users and the subject matter at hand, to dynamically facilitate the learning process.

4. Open source e-learning tools – These products have extensive developer communities; some of the standards that are in support of making a decision regarding an open source software applications are related to cost savings, stability, performance and access to regulations. On the other hand, for ensuring that users in the near future as well as the longer term have access to the best available applications, these open source software applications should be built on open standards. It remains to be seen if open source e-learning technologies will confine to the current or future market share from commercial providers, but the crucial factor in decision making regarding the adoption of certain e-learning software for education is to consider all software options and make a choice based on their good points.
5. Standards Development – Standard development is meant to unite incongruent groups and interests in the distributed learning community. The main purpose is to synchronize emerging technologies and capabilities with public implementations. These standards should formulate coherent guidelines that can be understood and executed by developers of learning content. In the second place, they must be approved, understood and utilized by as wide a variety of stakeholders, especially learning content and tool developers and their customers. Thirdly, they must permit mapping of any stakeholder's specific model for instructional systems design and development into itself. Stakeholders must be able to analyze how their own model of instructional design is reflected by the reference model they hold in general.

ASSESSMENT AND EVALUATION

When understanding and communicating technological aspects within the teaching-learning processes it is essential to conduct assessment and evaluation procedures in order to understand and improve student learning, these involve determining appropriate criterion and high standards for learning quality; systematically gathering, analyzing, and interpreting information to verify how well performance matches those expectations and standards; and using the resulting information to authenticate, explain, and develop performance. When assessment and evaluation procedures are set in effectively within larger institutional systems, these can contribute in

focusing ones cooperative attention, examining hypothesis, and creating a shared academic culture dedicated to assuring and improving the quality of higher education (Spurlin, 2006).

When assessment is conducted with regards to technology, there are various questions that need to be considered and these are as follows: (Spurlin, 2006).

1. Whether face-to-face instruction is more convenient than the usage of technology?
2. How well does technology contribute in giving feedback to the students about their performance?
3. How does the usage of technology influence the thinking of the students?
4. How does technology meet different learning styles so that the learners get more easily adjusted with the technological material?
5. How can technology be effectively used when learners are in large numbers?
6. How does access to the internet affects' student's ability to conduct experimental enquiry?

When evaluation is conducted with regards to technology, there are various questions that need to be reflected upon and these are as follows: (Spurlin, 2006).

1. How does technology influence educator's workloads, in the sense is it more time bound and require more time for training and research?
2. Are the learners satisfied and pleased with the usage of technology?
3. What kind of barriers arises during the usage of technology within the classroom setting?
4. Is the usage of technology cost efficient and what are the learning management systems that are cost efficient?

KINDS OF TECHNOLOGIES USED IN LEARNING

1. Computer Technologies – Computers have taken many shapes and functions during the past decade and have been brought into being in today's classrooms; desktops and laptops are used by the teachers and students for everyday teaching-learning purposes. They are able to connect to the internet and other school resources. They are also connected to scanners and printers that enable learning objects to become more digitized and shared; another kinds of computer iterations that have been used within the classrooms are net books and tablet PCs, tablets are presenting more mobility in learning, while net books are creating a new economic and management classroom model (Classroom Technologies, 2010).
2. Handheld Technologies – Handheld devices come in many formats and provide a collection of services. Most of these devices are single purpose and many are proprietary and can only be used in a closed software environment. They range widely in costs. These tools offer enhanced learning opportunities that can enhance student learning. E-reader is an example of a handheld technology that is used within the classroom settings (Classroom Technologies, 2010).

3. Audio-Visual Technologies - Audio visual technologies are those that play and display content for a large group of students including the entire class. These technologies are used on a wide range within the classrooms to support student-centered learning, and they are beneficial to the traditional teacher-centered activities too. Audio-visual technologies can enhance the traditional experiences and make class-wide activities more effective. Examples used in classrooms are interactive whiteboards, wireless slates and interactive pens, projectors, TVs and large monitors, sound enhancement technologies, and video conferencing.
4. Assessment Technologies – Assessments carry a meaning more than testing, they are not just a series of test questions that require answers following a course of study; they have become part of the teaching- learning processes. It is vital for the educators to evaluate the progress of the students, is the student able to comprehend the idea or the topic effectively? Technology has played a major role in the redefinition by making these assessments easier to organize, distribute, achieve, and provide feedback in the meaningful timeframe. Examples are student-response systems, scanners, multi-function printers in assessment, and plagiarism software (Classroom Technologies, 2010).
5. Lab Technologies – New technologies are being placed in all sorts of labs every day. Labs are places for practical learning and these solutions provide that opportunity for the students to progress. What is especially exciting about newer lab technologies is their focus on supporting student centered learning; they are experiential and problem based, they do their best to provide a personal experience for each student in a way that might have been impracticable in the past. Additionally, with the enhancements offered by today's technologies, students get high quality experiences working with professional quality devices, software and processes that were not available a decade ago. This stimulates the students. Examples include scientific devices, math and technology; the recent focus has been to increasing student interest in science, technology, engineering and mathematics (STEM), virtual labs, wet labs and language labs.
6. Collaboration Tools - Collaboration is such a fundamental part of today's learning. Part of this is due to the interactive character of social networking that students have accepted and part is due to the potentialities offered by technology to integrate peer-supported learning into the curriculum. Students enjoy and take interest in collaborating. They get pleasure from sharing ideas and activities with each other. They also develop a helping nature for each other. Many educators are using technology to tap into these attributes so that students can learn more effectively. They are providing opportunities in space, time and content to let students contribute to the learning experience and to benefit in their collective energy and brainpower (Classroom Technologies, 2010).

TECHNOLOGY SUPPORTS AND ENHANCES SKILLS OF AN INDIVIDUAL

Learners are of various categories including age groups, in today's' world, even pre-school children are learning through technology, they are shown how to color, draw, use paint on notebook pages on computers. There has been usage of technology in regular schools in the teaching-learning methods. Learners have reported that the ability to listen and play back recordings helps in identification of grammatical errors and imprecision in pronunciation, thus encouraging self-improvement (Motteram, 2013). The present world has been stated as the age of technology, there have been emergences of wide variety of technological aspects that have facilitated the existence of human beings. Broadband related technologies have enabled the learners to communicate over distance, bringing nationals in contact with internationals and facilitating communication between them.

Technology can be used in language learning, reading and writing activities, when a researcher tends to obtain various kinds of information on any topic, then internet proves to be a useful tool. Mobile apps have proved to be economical for the purpose of reading and writing, they enable the users to transfer knowledge and skills across from a stronger first language to their learning of English, there are abundant apps that assist the development of vocabulary, grammar and colloquial language as well as contextualizing language through cultural contexts that make meaning clear (Motteram, 2013). Technology can prove to be useful when information has to be communicated to larger number of people; projectors have been largely used while conducting a seminar, when one has to give lectures or presentations within the organization, then there is usage of technical devices to impart information to larger audiences, hence technological innovations have proved to be useful in majority of ways and have supported and enhanced the skills of the individuals.

CONCLUSION

In the present world, technology has had great impact over all kinds of tasks, assignments and undertakings. In educational institutions, there has been usage of technology in the teaching-learning methods, in organizations there has been immense usage of technology in the form of cloud computing, while giving presentations and other projects. These days it is observed in banks and all the offices there are computers and all kinds of work is done mainly through computers. Technology has many advantages such as it is less time consuming, it does work at a faster rate, it is manageable; on the other hand sometimes individuals do not feel comfortable while using technology hence this proves to be a disadvantage. Technology is of various kinds that have been used such as lab technologies, computers, audio-visual technologies, collaboration tools, assessment technologies, mobile technologies and handheld technologies. Finally, it can be stated that the usage of technology has made lifestyle of individuals much effortless and straightforward; people can communicate with each other in a more uncomplicated manner and perform their work assignments in more unproblematic ways.

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