Abstract

The major challenge of Education in 21st century is the challenge faced by every institution to survive as institution of quality and excellence, since the world is said to have entered an age when information is central to technology, economy, work, space and culture. The convergence between information technology and communication technology has open new avenues for each and every country during these periods of modernization and globalization. One can use technology to better display information and organize better class room presentations. Educators must discover and develop how to implement new technologies into the learning environment. This paper throws light on how new technologies to increase teaching and learning process will be more enjoyable.

1. Introduction

Transition, Transformation and Revolution is the scenario of today’s educational system. All the processes of teaching and learning are crossing the boundaries and barriers. This tendency requires a change in knowledge competencies and skills to deal with technological advancement in networking which is necessary to establish a network between students, educators, parents, institutions and libraries the world over. Technology is the means to enhance teaching-learning quality. One can use technology to better display information, increase access to information, improve information sharing, and organize better class presentations. Educators must discover and develop how to implement new technologies into the learning environments and focus efforts on facilitating learning not implementing “multimedia toys”.

Education encompasses teaching and learning specific skills, and also something less tangible but more profound; the imparting of knowledge, positive judgment and well developed wisdom. Education has as one of its fundamental aspects of the imparting of culture generation to generation. Education means ‘to draw out’ facilitating realization of self-potential and talents of an individual. It is an application of pedagogy, a body of theoretical and applied research relating to teaching and learning and draws on many disciplines such as psychology, philosophy, computer sciences, sociology, mathematics, neuroscience.
The world is becoming more interconnected, the environment is becoming less stable, and technology is continuously altering our relationship to information. Changing global conditions demand that we rethink what, but even more important, how and where we learn. We need education for the 21st century. Reaching today’s students requires new tools and strategies the old ‘sit and get’ approach to learning is not an effective way to reach a generation of learners who are accustomed to active engaged.

2. Significance of Technology in Teaching Learning Process

The technology has facilitated learning of the learner by catering to the varied styles that the learners possess. Some students learn by doing, some by reading, and some by observing. This kind of variation in learning capability creates a rather large hurdle for educators to overcome in their attempts to reach and engage all learners. Until the recent onslaught and availability of technology in the classroom, there was little educators could do to reach all these different learning styles. Before the induction of technology in education, teachers had to spend many nights developing lessons, trying their hand at drawing 3D visuals for the students, repeating the concepts delivered in the class. The use of technology in the classroom by the teacher not only reduces the “generation gap” between teacher and students that their teacher is moving with the times and is well equipped to prepare them for 21st century skills.

3. Dimensions of Technology Strategies Use in Teaching Learning

Today teachers use electronic media for the teaching – learning process in the classroom. It is order of the day that every teacher should use all kinds of educational technologies in their teaching strategy.

i) Electronic Learning (e-Learning)

Electronic learning is a general term used to refer computer enhanced learning. It is commonly associated with field of Advance Learning Technology (ALT), which deals with both the technologies and associated methodologies in learning using networked technologies. It is also known as online learning. However, e-learning involves more than just the presentation and delivery of the materials using the web: the learner and the learning process should be the focus of e-learning.

ii) Ubiquitous Learning (u-Learning)

Ubiquitous learning means “everywhere learning” or learning content follows people around. Core “knowledge pots” hold content and information. Various devices plug in and retrieve the information in the appropriate formats like cell phone, laptop or other technology gadgets. It fulfils e-learning’s promise of “anytime, anywhere, and any context”. Ubiquitous Learning (U-Learning) emerging through the concept of ubiquitous computers in education, the introduction of e-learning and mobile learning epitomized the constant transformations that were occurring in education (Muthuchamy, Thiyagu, 2010).

iii) Virtual Learning

Virtual learning refers to all learning activities that occur in non-contiguous educational settings where the learners and their teachers are separated temporally and spatially (Anandan, Nallu Samy, 2013). A virtual learning environment is a term that refers to technology which supports teaching and learning; it involves collaboration, communication and content tools, as well as providing students with an online personal learning space. Virtual learning environment do not decrease the importance of the classroom or the teacher, they enhance the learning and teaching...
experience. The virtual learning environment, if used effectively, changes the entire teaching and learning experience by making learning very invigorating, vibrant and real. Virtual learning environment support is dedicated to improving and enhancing the teaching and learning experience not only for the student but for the teacher as well.

iv) **Blended Learning**

Blended learning is a face-to-face classroom instruction with online learning. A major part of the activities take place online, while traditional classroom time is reduced but not eliminated. Blended learning sometimes, also called “Hybrid learning”, it provides the best opportunities for learning transition from classroom to e-learning. These methods may include a mixture of face-to-face classroom, self-paced learning and online classrooms.

v) **Blog**

The term web-blog refers to a simple webpage consisting of brief paragraphs of opinions, information, personal diary entries, or links, called posts, arranged chronologically with the most recent first, in the style of an online journal. The education Blog can be a powerful and effective technology tool for teaching and learning process.

vi) **Wiki**

A wiki is a webpage or set of Webpages that can be easily edited by anyone who is allowed access. Wiki is a collaborative tool that facilitates the production of a group work. Wiki pages have an edit button displayed on the screen and the user can click on this to access an easy-to-use online editing tool to change or even delete the contents of the page in question. Simple, hypertext style of linking between pages is used to create a navigable set of pages. Wiki allow learners to participate in collaboratively building resources. An essential part of reflective learning is that learners should be encouraged to reflect on their knowledge and make it explicit wikis allow this reflection to be done collaboratively, moving closer to a fully social constructivist mode of learning. Because of their very low technological barriers yet very rich flexible functionality, wiki is afford the opportunity to offer collaborative, constructive learning more extensively in our teaching-learning environment (McMullin, 2005).

vii) **Collaborative Learning**

The potentially of the online environment for collaborative learning and mutual support among students was identified early in its history during the late 1980’s and early 1990’s. Almost all emerging online literature refers to learning as a social experience, and assumes greater flexibility offered by online technologies can help support the needs of diverse learners. Network facilitates student’s collaboration even in situations where there are no opportunities for face-to-face conversation. Collaborative Learning as the acquisition by individuals of knowledge, skills and attitudes occurring as the result of group interaction. In collaborative learning students are encouraged or required to work together on a learning task, so that they can encounter different points of view which may bring to light their misconceptions and give rise to synergistic solutions.

viii) **M-Learning**

M-Learning is one of the wireless technologies which are used anywhere, any time and by anybody with using this latest technology in teaching-learning process we can enrich our communication with pupils and convey our ideas effectively. Mobile learning simply means “Learning on the move”, “any sort of learning that happens where the learner is not at a fixed, pre-determined location or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies”.

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4. Conclusion

Globally educational systems are under great pressure to adopt innovative technologies in the teaching and learning process, to prepare students with the knowledge and skills they need in the 21st century. Transition, Transformation, and Revolution is scenario of today’s educational system. All the processes of learning are crossing the boundaries and barriers. This tendency requires a change in knowledge competencies and skills to deal with technological advancement in networking which is necessary to establish a network between students, educators, parents, institutions and libraries the world over. Therefore, the use of technology in education not only improves classroom teaching—learning process, but also provides the facility of e-learning.

Technology has enhanced distance learning. The teaching community is able to reach remote areas and learners are able to access qualitative learning environment from anywhere and at any time. It is important that teachers should be made to adopt technology in their teaching styles to provide pedagogical and educational gains to the learners.

5. References