



Role of new learning technologies in education

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Abstract

The world is changing fast as the requirements of people entering this world are different than what they had been in the past. Ever evolving technology has brought about changes not only in students but also a drastic change is there in the teaching –learning process. These technological changes have finally affected the requirements of students. The technology integration can play an active role in changing our learning environments to better support the development of higher level thinking skills needed in the 21st century. There appear new requirements for this change and the impact of this change on the theories about learning may be the old theory leaves out an explanation for cognition within the brain.

Keywords: new learning technology, education

Introduction

The impact of ever growing technology on Student Learning states that the world is becoming sophisticated, multifaceted and nuanced increasingly. There is need of high –level learning skills to learn, respond and adjust to ever –changing circumstances. With the growing complexity of the world, success and prosperity is directly linked to students’ ability to think, act, adapt and communicate creatively. It is only technology integration that can play an important part in the process of creating more authentic learning environment.

Learning technologies

The application of technology for the enrichment of teaching, learning and assessment is defined as the Learning technology. The computer- based learning, multimedia and the use of network and communication systems to support learning are included in it. Learning Technology includes many applications which can be classified in the form of various acronyms, such as, CAI (Computer- Aided Instruction), CAL (Computer- Aided Learning), CBL (Computer- Based Learning), CBT (Computer- Based Teaching). The essential objective of these learning packages is the convenience with which the learner interacts with the content. This man –machine interaction is known as HCI i.e., Human Computer Interface.

Applications of learning technology

The important areas of the learning technology are being discussed as follows:

- Drill & Practice
- Tutorials
- Simulation
- Micro world
- Information retrieval System
- Cognitive tools for Learning
- Productive Tools
- Communication tools

Drill & Practice

It includes the structured reinforcement. This is based on question and answer interaction followed by appropriate feedback.

Tutorials

This package is used for teaching new concepts and processes. Material presented to the students is in the form of structured format that usually includes worked examples to provide an opportunity to the learners to have an assessment of their understanding with question- answer and feedback technique.

Simulation

It is a real situation or an imaginary situation that could be about a business plan, an animation or a laboratory experiment. It is an interactive graphics that enables a learner to visualize any process and analyze the effect of various changing parameters on the operation system.

Micro world

It is the use of computer to form a problem solving environment that works on the principles of Jean Piaget, the cognitive psychologist.

Information retrieval System

Here, the knowledge is stored in a structured way. It allows the learner to search for information according to the requirement. It includes, the online database, such as, dictionaries and encyclopedias, hypertext and hypermedia reference system etc.

Cognitive tools for Learning

Based on the constructive principle, which a learner needs to construct his own understanding of new concepts. It provides an opportunity to the learner to express his understanding of the new concept or knowledge.

Productive Tools

The tools like, word processors, graphics, database, spreadsheets etc, are used within a pedagogical framework and are not specific to learning technology, but they can enhance learning process by improving student productivity.

Communication Tools

There are several Computers – Mediated Communication Tools, like, electronic mail video conferencing, electronic conferencing and World Wide Web. These tools are used for sharing ideas and information's to cooperate and collaborate on any joint work. They also help in submission and publication of students' assignments and even teacher's comment on student's work.

Learning Technology and Learning Principles

Alone, learning technology can not advance learning, but can do it well when well- integrated with learning principles. Thus, learning technologies, well integrated with learning principles and practices, are being used in the service of learning. In this way, new technologies may advance learning. When traditional technologies are implemented with pedagogically sound practices, results in significant learning gains.

Conclusion

To conclude, with the application of learning principles, technology is being used in service of learning. Simulation, games and virtual worlds provide educators with opportunities to develop knowledge, decision – making power and information management skills, while their use in the environment of teaching is a little bit controversial as their association with play and fun is often considered as non-educational. Researchers suggest that they can play a very important role in facilitating learning through engagement, group participation and feedback.

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