



Technological Integration : A Modern Shift in Teaching and Learning

Information Communication technology has enthusiastically played an important role in teaching and learning process. 21st century teachers and students need to integrate the available technology in order to develop high order thinking and research skills, thus giving rise to a dynamic and more interactive curriculum. The paper is descriptive and highlights the concept of technology integration and its effects on teachers and students. Further, various tools used in the teaching learning process are discussed.

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(1) Introduction :

Today's competitive environment is incomplete without the use of technology as it has affected every aspect of life from communication to education. Technology has completely changed the outlook of education system by integrating itself so well in education system by allowing students and teachers to use it in learning and problem solving. Modern education system has completely incorporated technology in it leading to better learning outcomes than merely depending on face-to-face teaching system. There has been continuous transformation in learning technologies in terms of content, quality, context and implementation.

(2) Concept of Technological Integration :

Technology Integration is a process of using technical tools in teaching and enhancing learning and problem-solving skills in students. It helps them to obtain and present useful information on broad topics without consuming much time. Technology has contributed to the curriculum development in teaching and delivery system for students and teachers. Thus, large amount of investment is done to integrate updated technology in various educational institution which helps in active engagement of students in various projects and making learning meaningful and easier. It also helps them to improve their personal performance by gaining critical thinking which is essential to sustain in this competitive world.

Nowadays, these skills are attained by students through curriculum integrated approach in which information technology is used in an appropriate manner by teacher to develop IT literacy among students. Effective integration of IT will help students to:

(i) Acquire knowledge to use and assess Information Technology.

(ii) Use Information Technology to solve complex problem both individually and collaboratively.

(iii) Create interest in various subject matters through interactive learning process leading to conceptual development and increased performance.

(iv) Develop creative and critical thinking as the students participate actively in the learning process.

(v) Collaborate with peers, while working on small research- based projects.

(vi) Link and control themselves with variety of learning tools.

(vii) Obtain accurate and better looking information in less time.

(viii) Evaluate and analyze the information available and make change easily and quickly if required.

(ix) Present large volume of information comprising of definitions, facts and figures.

(x) Become active users of technology by organizing independent and individual learning process, thus creating a sense of responsibility among them..

(xi) Cultivate interest in studies with continuous involvement in class activities.

(xii) Express effectively their ideas and views among students and teachers, thereby promoting communication capacity.

(2.1) Integrating Technology in Teaching :

Information and communication technology has modernized itself to a great extent. It has provided a wide range of innovative tool to educate people and integration of technology into the education curriculum have always been a priority and has been extended to teachers and students on a daily basis as more use of 3D animated modules , videos and smart-classrooms has made education interesting as well as promoted conceptual development among students. Technological Integration has helped

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learners to develop background knowledge on a subject, use the available information and present their own views and enhance their performance.

"Effective Integration of technology is achieved when students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information and present it professionally. The technology should become an integral part of how the classroom functions- as accessible as all other classroom tools."- National Educational Technology Standards for Students Integrational Society for Technology in Education.

(2.2) Teacher- a facilitator in Technological Integration:

Modern education system demand new duties from teachers as rapid development in science and multimedia technology have integrated teaching and learning enhanced communication skills and improved interaction among students and teachers. For this, teacher's role as a facilitator is important. Teachers must be fully aware of the smart and innovative teaching techniques so that they can promote interactive learning process in classrooms. They should be provided professional training to keep themselves updated of continuous changes and innovations in technology, which will help them to have a positive attitude towards modern education system.

(3) Tools used in Technological Integration :

You can teach a student a lesson for a day, but if you can teach him to learn by creating curiosity, he will continue the learning process as long as he lives. -Clay P. Bedford

Technology rich classrooms use a variety of tools which promote quality teaching and learning. Some of tools are as follows :

(a) Web Quets : It is a student- centered learning technique which uses internet and supports learners to analyze and evaluate the information available on different issues. It consists of an introduction, a task, process, evaluation and a conclusion.

(b) Videoconferencing : It transmits images, videos and audio between teacher and students thus leading to effective learning in classrooms. It also helps in enhancing the communication and social skills among students and motivates them to express themselves.

(c) Handheld technologies : They are used by students and teachers to access and share information anywhere and at anytime. Eg: iPods, Mp3 Players, Smart Phones, Tablets, e-books, students use these technologies to refer to past- projects and solve complex problems. Teachers use handheld devices to keep check on the student's performance of a task.

(d) Wireless Technologies : These are portable, time saving, can be accessed anywhere at any time and provide high comfort level to its users. They help to improve and promote learning among students and facilitate collaborative learning.

(e) Interactive White Boards : They are used to promote 3D virtual learning in classrooms. Teachers can

use the touch screen option to run programs. Students find fun in learning as they can view diagrams, videos, animated objects, charts and many more on a big screen in front of them. The interaction between students and teachers helps in improving students learning , boosts attentiveness and increases test scores of students.

Conclusion :

Technological Integration in teaching-learning process has grown considerably since years, by offering variety of curriculum support strategies. Effective integration of technology can be possible only if teachers have access to ongoing developments and innovation in technology. Use of information and communication technology act as a change agent in educational practices. New ways of using technology have prompted students interest in learning, improved their professional and communication skills. Change in technology is a never ending process, future demands to develop more understanding regarding the new concepts which technology offers.

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