

# ICT IN TEACHING – LEARNING PROCESS

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## **Abstract**

ICT is a generic term referring to technologies, which are being used for collecting, storing, editing and passing on information in various forms. Information and Communication Technologies, (ICT's) are one of the major contemporary factors shaping the global economy and producing rapid changes in society. ICT have fundamentally changed the way of learning, communicating, and business.

ICT can transform the nature of education where and how learning takes place and the roles of students and teachers in the teaching learning process. ICT has the potential to enhance access, quality and effectiveness in education in general and to enable the development of more and better teachers in particular. A personal computer is the best known example of the use of the ICT in education, but the term multimedia is also frequently used.

Multimedia can be interpreted as a combination of data carriers, for example video, CD-ROM, Floppy disc and internet and software in which the possibility for an interactive approach is followed.

The existence of ICTs does not transform teacher practices in and of itself. However, ICTs can enable teachers to transform their teacher practices, given a set of enabling conditions.

Teachers' pedagogical practices and reasoning influence their uses of ICT, and the nature of teacher ICT use impacts student achievement. ICTs are seen as important tools to enable and support the move from traditional 'teacher-centric' teaching styles to more 'learner-centric' methods.

Pedagogical practices of teachers using ICT can range from only small enhancements of teaching practices using what are essentially traditional methods changes, to more fundamental changes in their approach to teaching. ICTs can be used to reinforce existing pedagogical practices as well as to change the way teachers and students interact.

**Key words:** ICT, E-learning, E-teaching, Active, Blended, Collaborative, Evaluative, Creative, Integrative and U-learning.

## **Introduction**

ICT stands for Information and Communication Technologies. This term is now widely used in educational research, policy, and practice. It replaces the older term, "IT", or information technology, which was most often used In reference to computers and the Internet.

## E-learning

E-learning is a technology which supports teaching and learning via computer web technology. E-learning means self teaching. The term “e-learning” implies a new educational technology, based on well-designed computer-based courseware that allows students to teach themselves. E-learning is Internet-enabled learning. It provides faster learning at reduced costs, increased access to learning, and clear accountability for all participants in the learning process.

## Technology in Learning

The implementation of teaching online would extend access for higher education to students who would not otherwise be able to attend classes and would result in increased online courses via computer. The commonly used teaching tools can be implemented easily through the online system. Instead of oral lectures, professors may send lecture notes to supplement assigned readings. Students can also be sent prepackaged tutorials that use graphics or CD-ROM software that uses video clips. Many websites act as repositories for lecture notes and course materials they simply modernize the chalk and talk experience.

## E-teaching

By comparison, “e-teaching” is the facilitation of live teaching with streaming lectures, whiteboards, downloadable slide sets, and discussion forums. E-teaching is about the automation of an existing teacher-centered educational approach, while e-learning means a new students-centered approach that is more consistent with adult learning theory. Teacher-centered education is considered obsolete and, within the e-learning industry, “teaching” is almost a bad word and the word “teacher” is not used. People who prepare e-teaching programs refer to themselves as “instructional designers” or “educational facilitators but not as “teacher”

## Technology in Teaching

The instructional methods to be used in socio-constructivists web-based environments no longer position the student as a passive recipient of knowledge and the teacher as the one who well transmit the knowledge. This paradigm shift also implies in some cases, the loss of authority of the teacher in the classroom and this has been the main reason behind the reluctance of teachers to adopt the innovative methods.

## ICT in teaching and learning Process

The traditional practices and learning methods in education no longer provide the students with all the skills and competencies they need. Finding and memorizing information is no longer a challenge on the contrary. It seems to be too much data available. The key is digital and media literacy. This new environment requires new pedagogy and new roles for the teacher, from the deliverer of information to facilitator both face-to-face and virtually.

Teacher development frequently focuses on how to use new technology rather than the pedagogical reasons for adoption and use. The role of the teacher is to facilitate deep learning by setting a positive climate for learning, clarifying the purposes of the learners, organizing and making available learning resources, balancing intellectual and emotional components of learning and sharing feelings and thoughts with learners.

**E-learning:**

It is a learning program that makes use of an information network such as the internet, an intranet or extranet whether wholly or in part, for course delivery, interaction and /or facilitation. Web-based learning is a subset of e learning and refers to learning using an internet browser such as the model, blackboard or internet explorer.

**Blended Learning:**

It refers to learning models that combines the face-to-face classroom practice with e-learning solutions. For example, a teacher may facilitate student learning in class contact and uses the model to facilitate out of class learning.

**Active Learning:**

ICT-enhanced learning mobilizes tools for examination, calculation and analysis of information in order to provide a platform for student inquiry, analysis and construction of new information. ICT-enhanced learning can also be ‘just-in time’ learning that the learners choose what to learn when they need.

**Collaborative Learning:**

ICT-supported learning encourages interaction and cooperation among students, teachers, and experts regardless of where they are. Apart from modeling real world interactions, ICT-supported learning provides opportunity to work with students from different cultures, thereby helping to enhance learners teaming and communication skills as well as their global awareness.

**Creative Learning:**

ICT-supported learning promotes the manipulation of existing information and the creation of real-world products rather than the duplication of received information.

**Integrative Learning:**

ICT-enhanced learning promotes a thematic integrative approach to teaching and learning. This approach eliminates the artificial separation between the different disciplines and between theory and practice, which characterizes the traditional approach.

**Evaluative Learning:**

ICT-enhanced learning is student-directed and diagnostic. Unlike static, text or print-based education, ICT-enhanced learning recognizes the presence of different learning pathways to explore and discover rather than merely listen and remember.

**U-Learning:**

Ubiquitous learning, also known as u-learning is based on ubiquitous technology. The most significant role of ubiquitous computing learning in u-learning is to construct a ubiquitous learning environment, which enables anyone to learn at any place at anytime.

**Conclusion:**

Information communication technologies are influencing all aspects of life including education. They are promoting changes in working conditions, handling and exchanging of information, teaching-learning approaches and so on. ICTs promote problem based learning as a solution to settings where the teacher is the only individual who talks and gives command and less integration for students.

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