

“Importance of Education Technology In Teaching-Learning”

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Abstract

This research paper carried out the significance of technology for education in teaching-learning process. Education technology is the combination of instructional approach with a system approach. It is the outcome of technological innovation in the field of education. It is a systematic, sequential, structural process developed to extend the classroom environment related to teaching and learning of any concept. Education technology is the intellectual result of the various efforts done by experts to systematize the scientific application in the field of education to explore, enhance the teaching-learning environment of conventional classrooms as well as open and distance learning. In-depth, it is the organization of the instructional material in the technological tools to facilitate teaching-learning process. It is also concern about learning objectives, so it gives flexibility to the teachers as well as learners to modify their teaching-learning process. Education technology is the judicial amalgam of instructional material and science-based practical innovation based on learning objectives. It is the development of educational perspectives and design to achieve educational goals, although education technology is very useful to teaching-learning process in the present scenario of education but it has own limitations. Some time is very time-consuming for teaching-learning process because it's based some tools and application needs to proper timing to involve in classroom environment. It is also very complex compared to the traditional method, it creates a problem to understand the concept. Education technology-based content material is widely used but whenever it not sufficient for the learning as well as teaching to students and teachers.

KEYWORDS: Education technology, Teaching-learning, Instruction technology, Technology design, Development

INTRODUCTION

The modern world is knowing for technological development because day by day various technology innovates to make human life simple, easy and flexible. Daily life of human being is touched by technology, although teaching-learning process is very valuable in an educational context, so numerous tools and techniques developed to enhance learning achievements. Education technology has emerged as a result of globalization and technology-based commutes at the country and world level stage. The emerged tempo of education technology advancement paved the new way to employ all the views in the field of education. Deeply, we find that education technology is the advanced output of Information and Communication Technology (ICT). It practices the application-based model and module which is not derived without the use of ICT.

Education technology is the dominant practice of the technological developed tools and techniques in teaching-learning. When we considered it as a concept, it occupies as a batch of tools, namely media, machinery and networking with the inclusion of theories of instructional materials. Education technology considered various types of media equipment that convey with text, audio-video, images, animated pictures and graphics which includes application-based outcomes like satellite, TV, CD-ROM and Computer-aided instructions and learning as well as web-based learning materials. It also included physical/ hardware as well as the theoretical practice of instructional materials and considered various aspects namely like theories of learning, computer-based training, virtual learning, mobile learning, and blended learning. Education technology has touched the traditional criteria and opened up a new way to the teachers and students to utilize the resources and their management related to teaching-learning. In the present education system teachers used a various range of media to serve and addendum to their instructional work because it can be conceived as the science of technology which can be used to gain educational goals. It is the use of technology and educational material for maximizing the teaching-learning experiences. It is also recommended by the various experts as one of the major voltage means to utilize education very adequate and expeditiously. In the present education system education technology has perfectly overturned the whole educational outcome related to teaching-learning goals and

objectives. It is an organized and ordered process related to the application of technology to modify the quality of education related to classroom behavior.

Based on various research studies suggestions and findings researcher find that education technology has own importance and quality in which some are described below: -

- Education technology deals with a theoretical approach with the instructional materials to explore teaching as well as learning.
- Education technology works as a technological innovative tool that assists the teachers and students to encounter the problems related to teaching-learning.
- Education technology for learning system management (LMS), deals as an instrument for the students to help in their knowledge management.
- Education technology itself works as a subject of education namely called Information and Communication Technology.
- Education technology also used by the teachers to assists their teaching-learning process in the classroom.

DEFINE EDUCATION TECHNOLOGY

It is the progressive emergent of applicable technology and estimation of combined techniques and assistance to amend mechanism of teaching-learning. It is also the facilitate the learning by the systematic use of technological innovation related to education and their perspectives and also useful in the utilization of the resources and learning materials related to concepts. It is like a combination of the tools and techniques which are very appropriate and helpful to the traditional classroom to improve in learning beyond the limits.

According to **Association for Educational Communication and Technology (AECT, 1994)** “Education technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological process and resources.”

According to **the Council for Educational Technology for the United Kingdom (CET)** “The definitions emphasize the development of human learning process, which is very complex, difficult to understand as so many factors such as socio-economic, educational, culture, language contribute a lot in a whole learning process.”

According to **Commissions of Instructional Technology (USA)** “Education technology is a systematic way of designing, implementing and evaluating the total process of teaching-

learning in terms of specific objectives based on research in human learning and communication and employing a combination of human and non-human resources to bring about more effective instructions.”

Michael Spector“Educational technology involves the disciplined application of knowledge to improve learning, instruction and performance”

According to S. K. Mitra “Education technology can be conceived as a science of techniques and methods by which educational goal could be realized.”

Based on the above definitions given by various experts related to the field researcher found that education technology is the judicial amalgam of the technological innovative tools and techniques and the instructional materials which is derived for the learning outcomes related to the objectives and goals. It is the way of systematic designing of the models and their implementation in teaching-learning process to evaluate this process regarding objectives and goals to improve and modify human behavior.

OBJECTIVES OF EDUCATION TECHNOLOGY

Education technology is the summation of the facilities, media, methods, and techniques to enhance and explore traditional classroom environment. It includes simplification of teaching-learning through technology-based resources to utilize the principles of teaching as well as learning. In this sense Education technology, particularly in the context of developing countries, means how the best available resources are utilized for optimizing teaching-learning.

Education technology as a concept has been in vogue in India for the last twenty-five years. This concept is used in two senses: (1) It means the application of mass media and audio-visual aids in education or technology in education and (2) It means utilization of all available resources in a system to optimize the teaching-learning process.

Another format of objectives deals with that education technology is the mechanization of the educational process. The mechanization is being done in all the three phases of human knowledge very rapidly:

- (a) Conservation of knowledge
- (b) Transmission of knowledge and
- (c) Advancement of knowledge.

Use of education technology provides more flexibility in teaching, day by day it expands and gives a new scenario of education. Based on numerous study, we find some key objectives of education technology

- ✓ Education technology opens new perspectives regarding usage in teaching.
- ✓ Education technology is adequate and appropriate for the implementation of any teaching-learning models.
- ✓ Education technology is the judicial amalgam of technology in education content.
- ✓ Education technology works as a factor and element to change in teaching didactics.
- ✓ Education technology focused on the continuous progress any concept related to learning.
- ✓ Education technology enhances the basic paradigm to enable innovation in related perspectives and criteria.
- ✓ Education technology highlighted on a system approach.
- ✓ Education technology developed the innovative method.

In the education process, education technology accomplished basic objectives which are mentioned below:

- To make easy, simple, accessible the teaching-learning process,
- Provide intensive aspect of learning as well as teaching
- Provide extensive aspect of organizing educational work

EDUCATION TECHNOLOGY IN CLASSROOM

Education technology is the orderly practice of innovative instrument and techniques in conventional classroom. It works as a body of knowledge that has impacted much on the educational system. It has made for the purpose to make teaching easy and simple, increase productivity in the teaching-learning summons through the effective use of the technological model. It also plays a very important role in classroom communication between teachers and students. Education technology has its own characteristics by which teachers facilitate their teaching and provide a suitable environment in the classroom to the learners.

The application of technology in teaching has aroused more interest in learning and motivate students to active participation. Due to a more interactive nature, it is also assisted in sustaining student's interest in teaching-learning process. The present time is the world of technology so the application of technology in education is the basic requirement to promote

better teaching. The advanced version of technology like web 2.0 is the revolution in the field of education because it is more collaborative, interactive, cooperative for the students to resolve their doubts and queries synchronously. Students clear their doubts immediately and enhance their learning.

E-tutorial, e-content, video conferencing, online discussion forum, and other such type initiatives possible by the use of technology. Basically, it identified the needs of the classroom and encounters them. It is also helpful in the identification and development of knowledge and their transformation in perspective fields of education.

We know that very well that teaching is the art as well as science, if we considered it science, it has owned their specific characteristics, with the conventional methods we can't make teaching simple and interesting so we need some innovative methods and teaching strategies for classroom which is covered by the use of education technology. It controls the consumption of human power and time in teaching because it gives more information to the students in a short time.

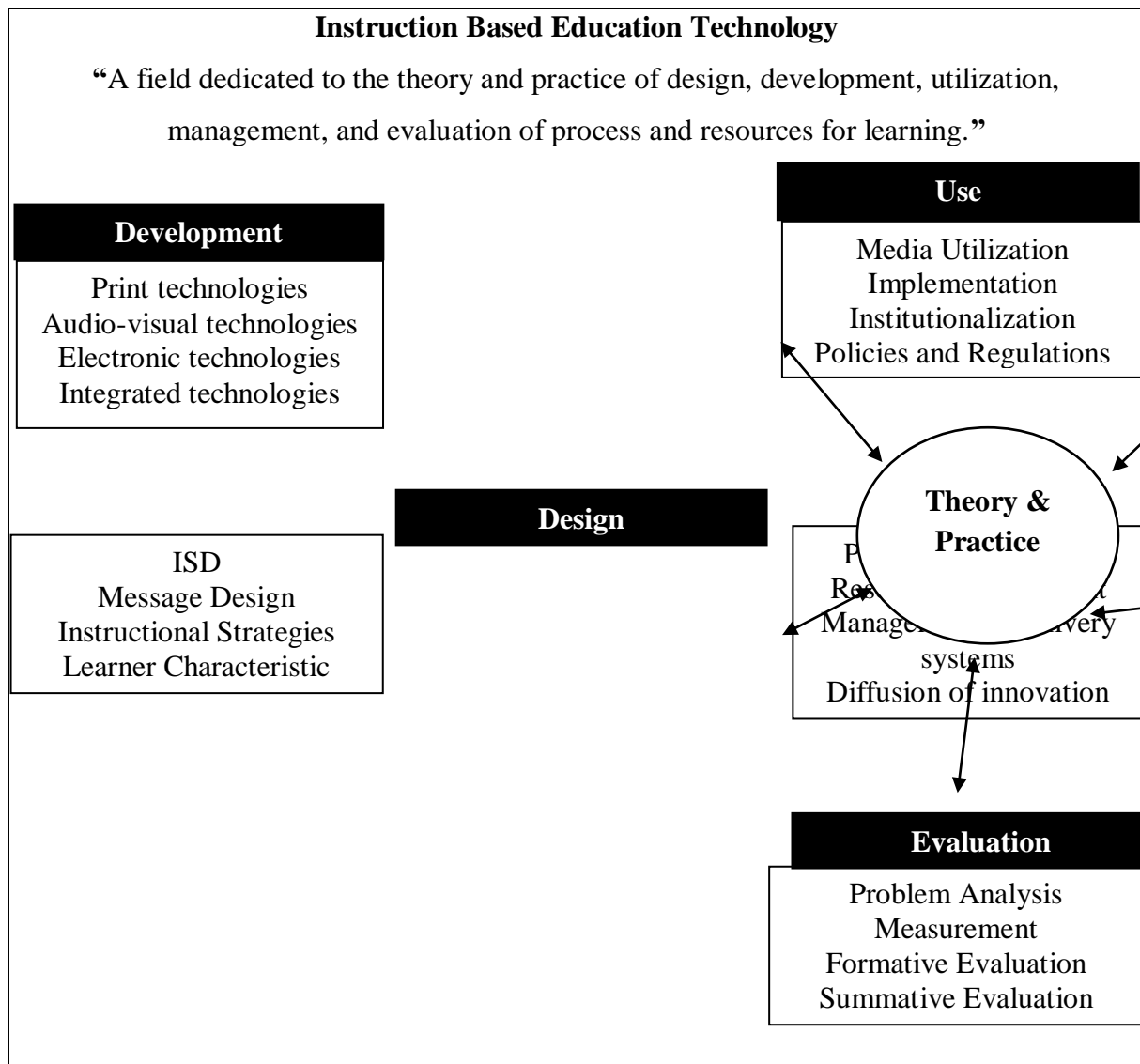
Education technology provides an opportunity to evaluate teaching-learning process in a short and very adequate manner and after the evaluation of students, it also focused on reinforcement and feedback. The teaching-learning material used by the teachers to enhance the classroom environment although these aids/ teaching-learning material based on the modern approach as well as the conventional approach. These totally cannot substitute the teachers so the technologies serve them to do their work in a capable approach to perform the educational goals and objectives. Education technology provides a suitable way to solve the educational problem and developed the curiosity in the students about learning (B.R. Smith).

ADVANTAGES OF EDUCATION TECHNOLOGY IN TEACHING-LEARNING

Education technology based on instructional technology and it is the orderly process to combine the whole process related with designing, developing, utilizing and evaluating instructional strategies, and management. Although the domains of the educational technology may appear discrete the practices within each domain are interrelated and are most effective when applied to an input-process-output approach, the essence of system theory. It also gives flexibility to the teachers and students to facilitate teaching and learning in the classroom and beyond the traditional classroom. It is also enriching the utilization of resources and content

materials for the teachers and students to the improvement and modification in teaching-learning of any regarding concepts.

Further to increase the potential for success during the instructional creation on instructional improvement process, it is important to be knowledgeable of each domain and to possess a minimal level of competency in the practices of each domain. Education technology is also helpful for the students to make them more adequate regarding performance in the learning of any specific subject. It also plays a positive role in the modification and improvement in teaching-learning process with the use of instructional material to derive the advantages of the fundamental interaction of learning as well as teaching. Education technology also provides the ability to select appropriate methods suitable for effective learning to take place, gives the appropriate learning experiences from the available alternatives, assigning the role of the teachers to the students. Due to the involvement of education technology in teaching-learning process, the realistic application of knowledge, practical application of information and skills became possible.



LIMITATIONS OF EDUCATION TECHNOLOGY IN TEACHING-LEARNING

For a variety of reasons, educational technology probably will remain in support and positive role play in classroom teaching-learning for the teachers and students in colleges and higher institutions. In the present education system, budgeting of education plans is major issues and problems regarding adoption, implementation and use in the education system although major authorities allow allocation to institutions to enhance, explore the use of education technology. Education technology also has own limitations because various innovative tools and techniques are not very flexible because these required special training to use them into teaching-learning of the classroom. Due to various hurdles and barriers like power supply,

computer availability, software updating, technological awareness, lack of training and computer instruction, sometimes education technology became a failure to use it in teaching-learning any concepts in the classroom. Although it has special quality but also affected the apprehensive nature related to dehumanizing because these people indicate their suspect attitude towards it and further argue that education technology is the output of machinery and instructional material that takes place by the interaction between teachers and students. Education technology is dependent on the nature of input material so no technology cannot develop advanced initiative without input, input materials are a more valuable element for teachers and students. It cannot produce instructional material itself, therefore education technology will not have displaced the human resource like teachers but assist them to modify and amend their teaching-learning process in the classroom.

CONCLUSION

The importance of education technology has own potential. It is the judicial amalgam of technology in educational perspectives. It gives the flexibility to the teachers as well as students to become more familiar with the education content and material in their activity like teaching-learning process to gain goals of the classroom. The modern world is very fast and growing so the human beings want those initiatives which enable them to access easily and freely every aspect of education as well as teaching-learning, so education technology is the best example of that initiative which is very helpful and useful to the teaching-learning outcome related to the goals and objectives. A new initiative of education technology is more interactive, learner paced learning that can remove traditional learning. The present educational scenario is incomplete with the use of education technology. A new generation of learners widely used education technology to improve their learning. The use and application of education technology enhance skills of learners and cognitive characteristics and also modified their attitude, aptitude, and behavior. Teachers also using education technology-based methods, strategies and approaches to make simple useful and easy learning. Education technology has its advantages with limitations regarding use, adoption, access, and availability. When we focused on advantages related to education technology in the classroom or traditional teaching-learning we find that it is very useful to the teaching-learning objectives and goals related to the learning environment. It is also open new perspectives of teaching-learning, useful to the implementation of the models, focused on the

system approach, developed innovative methods, accomplished basics objectives and make easy, simple accessible the teaching-learning process. Various studies were conducted respectively to the importance of education technology in teaching-learning and results also shown a positive posture towards the benefits of education technology in the teaching-learning process of classroom.

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