

Educational Technology in Teaching and Learning



Hazel Angelyn Tesoro

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Educational technology is a systematic and organized process of applying modern technology to improve the quality of education (efficiency, optimum, truth, etc.). It is a systematic way of conceptualizing the execution and evaluation of the educational process, i. e. in learning and teaching and helps in the application of modern educational teaching techniques. Technology for improving and facilitating learning processes is everywhere. This includes increasing exemplary performance within the educational system. Educational Technology has absolutely revolutionized the entire education system. Until recently, teachers used to be the sole interpreters of knowledge to learners, and the textbooks the sole resource. Educational technology has affected the conventional roles and it has opened up new areas of teacher functions, such as management of resources and management of learning. Today, teachers have a wide range of media to assist and supplement their instructional work. Teachers can even specify learning objectives, select the topic, identify the stimulus situation, determine appropriate media, manage teaching, and, finally, conduct evaluation and modify the instructions in the light of evaluation results. Technology begins to change people's vision of education at the moment a teaching-learning program integrated with technology begins. It has been used in about every classroom, as it becomes a part of courses in universities, high schools, and middle and elementary schools all over the world. Thus, technology as learning and teaching tools, force teachers and students to use it similar to learning a new task. For this reason, technology application in classrooms is essential to ensure its efficiency and effective integration. Technology has now changed how teachers and students access, gather, analyze, present, and transmit information by giving them greater power in the classroom. It has transformed a passive classroom to an active and interactive one, with audio-visuals, charts and models, smart classrooms, and e-learning rooms which drastically motivated and increased the attention level of students.



Hazel Angelyn E. Tesoro is currently pursuing her MA in Teaching English at the University of Rizal System (Morong Campus)—the same university where she earned her Bachelor's degree in Education major in English. Working as a Senior High School Teacher at Baras Senior High School, in her hometown, Baras, Rizal, she teaches senior high school core subjects and applied subjects as well as ones focusing on the strand Humanities and Social Sciences (HUMSS).



Tesoro

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About the Editor

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List of Abbreviations

ADL	Advanced Distributed Learning
ASD	Autism Spectrum Disorder
CAI	Computer-Aided Instruction
CAI	Computer-Assisted Instruction
CAVE	Cave Automatic Virtual Environment
CBI	Computer-Based Instruction
CBT	Computer-Based Training
CMi	Computer-Managed Instruction
CPB	Corporation for Public Broadcasting
CPE	Continuous Professional Education
CRS	Classroom Response Systems
EMIS	Education Management Information Systems
ET	Elaboration Theory
HPS	Human Patient Simulator
IBT	Internet-Based Training
ICT	Information and Communications Technology
ILS	Integrated Learning Systems
ILTS	Intelligent Language Tutoring Systems
ISD	Instructional Systems Design
IT	Information Technology
ITS	Intelligent Tutoring System
IVE	Immersive Virtual Environments
LCC	Least Connected Countries

LMS	Learning Management System
LRS	Learning Record Store
MALL	Mobile-Assisted Language Learning
MDG	Millennium Development Goals
MOOC	Massively Open Online Courses
PTSD	Posttraumatic Stress Disorder
VLE	Virtual Learning Environments
WBT	Web-Based Training
WSIS	World Summit on the Information Society

Preface

Educational technology is a systematic and organized process of applying modern technology to improve the quality of education (efficiency, optimum, truth, etc.). It is a systematic way of conceptualizing the execution and evaluation of the educational process, i. e. in learning and teaching and helps in the application of modern educational teaching techniques. Technology for improving and facilitating learning processes is everywhere. This includes increasing exemplary performance within the educational system. Educational Technology has absolutely revolutionized the entire education system. Until recently, teachers used to be the sole interpreters of knowledge to learners, and the textbooks the sole resource. Educational technology has affected the conventional roles and it has opened up new areas of teacher functions, such as management of resources and management of learning. Today, teachers have a wide range of media to assist and supplement their instructional work. Teachers can even specify learning objectives, select the topic, identify the stimulus situation, determine appropriate media, manage teaching, and, finally, conduct evaluation and modify the instructions in the light of evaluation results. Technology begins to change people's vision of education at the moment a teaching-learning program integrated with technology begins. It has been used in about every classroom, as it becomes a part of courses in universities, high schools, and middle and elementary schools all over the world. Thus, technology as learning and teaching tools, force teachers and students to use it similar to learning a new task. For this reason, technology application in classrooms is essential to ensure its efficiency and effective integration. Technology has now changed how teachers and students access, gather, analyze, present, and transmit information by giving them greater power in the classroom. It has transformed a passive classroom to an active and interactive one, with audio-visuals, charts and models, smart classrooms, and e-learning rooms which drastically motivated and increased the attention level of students.

Content Coverage

Chapters One and Two intend to provide an overview of educational technology and information and communications technology (ICT) for education, respectively. The broadness of ICT covers any product that will store, retrieve, manipulate, transmit, or receive information electronically.

Chapters Three and Four present coverage about M-learning technology used in education and, learning management system (LMS), separately. M-learning tech-

nologies include handheld computers, MP3 players, notebooks, mobile phones and tablets, while LMS is used for the administration, documentation, tracking, reporting, and delivery of electronic educational technology courses or training programs.

Chapters Five and Six focus on approaches of networked learning and computer-assisted language learning (CALL), separately. Networked learning takes a relational stance in which learning takes place both in relation to others and in relation to learning resources, whereas CALL includes the search for and the investigation of applications in language teaching and learning.

Chapters Seven and Eight present about virtual learning environment (VLE) and distance learning, distinctly. A VLE is a set of teaching and learning tools designed to enhance a student's learning experience by including computers and the Internet in the learning process. On the other hand, distance learning makes learning attainable for people from all walks of life.

Chapters Nine and Ten are about online learning in higher education and educational technology software. Online learning refers to enrolling in virtual courses offered by postsecondary institutions while educational software is computer software. The primary purpose of such a software teaching or self-learning. Educational software encompasses a wide variety of forms, costs, and purposes.

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