



TECHNOLOGY&ENHANCED TEACHING & LEARNING

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Abstract:

The aim of the present paper is to discuss the innovative use of technology enhanced and teaching (TETL) process or in other words it also called as Information and communication technologies (ICT) which make complex processes easier to understand through simulations that again contribute to authentic learning environment. Traditional teaching methodologies based on static material or master classes are not always the best approach to promote learning. Thus, TETL or ICT may function as a facilitator of active learning and higher order thinking. The integration of information and communication technologies can help reinvigorate teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas.

Teachers generate meaningful and engorging learning experiences for their students, strategically using TETL to enhance learning students enjoy learning and the independent enquiry which provides innovative and appropriate use of TETL to adopt ICT classroom instruction, student and teachers can learn to practice various ICT skills and its benefits through effective use of this technology. This innovative approach has potentiality to adopt to the student's instructional needs in the classroom situation. Teachers need to adopt technology as an integrated tool in the field of education. So a teacher may be called as a, "Teaching Technician" as the students need not depend only on his teachers always.

Education means to draw out facilitating realization of self- potential and talents of an individual . It is an application of pedagogy, a body of theoretical and applied research relating to teaching to teaching and learning. The future is isn't digital and technology is just a tool. The world is becoming more interconnected, the environment in becoming less stable, and technology is continuously altering our relationship to information. Changing global conditions demand that we rethink what, but even more important, how and where we learn.

Technology Enhanced learning, active learning, e-assessment, pedagogical models, innovative teaching technologies.

Keywords: *Technology, Learning, pedagogical models, innovative technologies*

Introduction:

"Yesterday is miles away and today is new today. With new goals to meet, let's rise and grow to our feet".

As quoted by Dr.A.P.J Abdul Kalam, "Learning gives creativity, creativity gives thinking, thinking provides knowledge, and knowledge makes you great. The definition of technology is elusive because it is revolutionary but in the terms it is defined as a devoted body of knowledge used to invent materials, process actions and extract materials from it.

The best way to predict the future is to invent it in the present. A teacher is like a sculptor who plays a key role in shaping the future of a student. Hence, we are indebted to the teacher in the one way or the other .

we are in the revolutionary technology world, the future may be digital but it cannot replace a teacher, but technology can be used as an effective tool to enhance the education sector and also teaching and learning.

Enhancement in teaching:

Planning
teaching



communicating

- **Planning:**The internet offers the website links and softwares in which the teachers share their plans and advises.
- **Teaching:**Innovative methods like smart interactive board which is very helpful for the students to learn,visual learners can see and learn while tactile learners can interact ,touch and can learn.The other method is flip classroom where this method reverses the traditionla classroom method.Teachers can showcase their videolectures and students can clarify their doubts without any ambiguity.And also there is a scope of classroom activities rather than homework activities which can put children under stress.
- **Communicating:**In this method teachers can communicate with the children through emails,blogs, etc.,this gives a chance to the students who fears to speak directly with the teacher.And also teachers can post their assignmets on the blogs,wikis and announcements also which makes them easier to convey to everyone.

EDTECH STARTUPS

Education technology encompasses everything the use of both physical hardware and software facilitate learning.The essence of edtech is utilising technological resources to improve pedagogy.It's a method of customizing the curriculum for a students ability level by introducing and reinforcing new content at a pace the student can handle.

Its a portmanteau of education and technology that enhances human race. EX:The Indian edtech giant BYJU is in talks to raise 200-300 million dollars.

Democratising Education:

Enable access or catered to a high quality of education to all.According to US Bureau of labor statistics,the cost of textbook rose by 88% between 2006 and 2016 which way more compared to increase in tution fees and housing cost 63% to 50%.

The global edtech and e-learning market is projected to grow at 5.08% CAGR by 2022 making the total worth a whopping 243 billion dollars.

CASE STUDY:

MITS-Madanapalli Institute of science and technologies It's a technological institute located in Madanapalli, Chittoor district. Recently it selected for smart India Hackathon 2019.

AI enhances teaching and learning:

Adoption of voice assistants:adoption of voice assistants like Google Home, Apple siri,Amazon Alexa,Microsoft Cortana are giving students a chance to interact with educational material without interaction of teacher.

AI-enabled hyperpersonalization:Rather than requiring teachers to create a single curriculum.for all students,educators can have augmented intelligence assistance that provides a wide range of materials leveraging the same core curriculum but cater further specific needs of each student.

support enhances teachers and students:In addition to acting as a personalized learning companion. It will also be able to help students with special needs by adopting materials to lead them to success.

Teachers to act as learning motivators:As AI takes on move of a teaching role by providing students with basic information it will change the role of teacher in the classroom.Teachers will move into the role of classroom facilitator or learning motivator.

Differentiated & individualized learning: It will allow a level of differentiation that's impossible for teachers who have to manage every student in the class. Provides learning,testing and feedback to students and identifies gaps in knowledge.It might be



possible for a machine to read the expression that passes on a student's face that indicate they are struggling to grasp a subject and will modify a lesson to respond to that.

Technical methods which enhances learning:

3-D printing: learning becomes immersive and tangible when learning becomes interesting it becomes powerful.

Allow them to bring a unique and diverse skill set, including highly effective abilities around create building, visualising and problem solving.

Gamification-The mind at play

- Makes Big Things Into Little Things
- Challenges Your Inner Competition
- Helps Us Set Small And Effective Goals
- Clarifies Objectives
- Provides Bookends Or Boundaries
- Offer Regular, Positive Feedback
- Learner Loyalty
- Simulates Interest

What Indian Government striving to digitalise education sector?

SAKSHAT-a one stop education portal

Launched by Dr.A.P.J.Abdul kalam on October 2006.

Leverage powers of ICT in higher education. The quality e-content once developed will be uploaded on SAKSHAT in all disciplines and subjects. Learners can explore knowledge repository available on the net in the form of e-books, e-journal

NPTEL-National programme on technology enhanced learning

MOOC-Massive open online course

RISE SCHEME-revitalizing of infrastructure and system on education

CLOUD COMPUTING:

Cloud computing is an affordable resource that enables fast processing, large data storage capacity and the sharing of resources. Cloud is a ubiquity we take for granted.

1. Lower software & hardware costs
2. virtualclassrooms
3. better access to training and education
4. virtuellabs

Conclusion:

So, we can say that the use of ICT has great potential in preparing students for facing various challenges and responsibility to be fulfilled by them. Transition, Transportations and revolution in the scenario of today's educational system. So, the teachers have to realize that if the students are to achieve a high level competency then they have no other choice, but to adopt technology as an integrated tool in the field of education.

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