Modern Technologies in Colleges of Education

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Abstract

The Modern technologies in teaching apparently facilitate both the effort of the teacher as well as the learner. Institutions of higher learning are presumably supposed to be the benefactors of most ICT facilities. For instance institutes of education, faculties of education, colleges of education and other teacher producing institutions, stand the chance of utilizing these facilities fully for instructional purposes. This presupposes that prospective teachers should benefit from these facilities so as to enable them use the facilities in classroom instruction.

Introduction

Modern Technologies offer tremendous possibilities in enhancing students' learning, developing teachers' professional capability and strengthening institutional capacity. It enables opportunities for educators to enhance the quality and accessibility of their Instructional material. The society is highly networked to create knowledge-intensive environment to efficiently create, share, use and protect knowledge. Educational Institutions are gearing up to provide information networks to students with access to digital resources. It is a powerful tool for problem-solving, conceptual development critical thinking and evaluation which help to make the learning process much easier for the students. To be effective in the Classroom Instruction, Teachers should acquire the knowledge and skills to adapt to the new electronic technological tools like Computer Assisted Instruction (CAI), On-line Learning, Virtual Learning, e-Learning, m-Learning, Blogs, Podcasting, Videoconferencing etc. which are student-centered, collaborative, engaging, authentic, self-directed and based on the development of higher order thinking skills with respect to handling classes for students which aims to achieve high academic standards.

Various Modern Technologies

The following are the various modern technologies that can be used for teaching learning process which could be more effective.

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- With Computer Aided Instruction (CAI) applications, for example, it is possible to individualize learning while giving immediate reinforcement and feedback
- Computers are multimedia tools and can therefore integrate graphic, print, audio and video into interesting and captivating computer-based instructional units, lessons, and leaning environments
- Computer Managed Instruction (CMI) technology utilises the computer's branching, storage and retrieval capabilities to organise instruction and track students' progress.
- Education Management Information Systems (EMIS) can improve individual school administration as well as nation-wide management of all schools and educational facilities.
- Computer Mediated Communication (CMC) technologies (such as instant messaging, electronic mail, bulletin boards and computer conferencing) facilitate communication among students, teachers, researchers and other individuals of similar interest.

Modern Technologies in Teaching – Learning Process

Modern Technologies enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the quality and efficiency of the teaching-learning process. Ranging from projecting media to support a lesson, to multimedia self-learning modules, to simulations to virtual learning environments, there are a variety of options available to the teacher to utilise various modes/modern technological tools for effective pedagogy. Each such device or strategy also involves changes in the classroom environment, understanding of which has a bearing on its effectiveness. Availability of a wide range of such teaching learning materials will catalyze transformation of classrooms into SMART classrooms.

All teachers, all of whom would have acquired a basic competency to handle these resources, will be encouraged to adopt Modern Technology enabled practices in teaching learning. A wide range of appropriate software applications, digital content, tools and resources will be made available through the proposed digital repositories. Teachers will participate in selection and critical evaluation of digital content and resources. They will also be encouraged to develop their own digital resources, sharing them with colleagues

through the digital repositories. In schools equipped with EDUSAT terminals, DTH or other media devices, relevant activities will be planned and incorporated into the time schedule of the school. Initially the teachers may use the Computer lab for teaching-learning but progressively more classrooms will be equipped with appropriate ICTs, making way for SMART classes.

Benefits of Modern Technology in Classroom Instruction

There are enormous benefits from the usage of Technology in Classroom Instruction. The benefits of this technological feature in Classroom Instruction are summarized below.

- Improves efficiency both in teaching and learning
- Increases motivation
- Paves way for Personality Development
- Active Participation of students
- Self-paced Learning
- Very flexible and rich medium for students to access the information
- Better learning, Retention and Students' performance
- Multisensory Learning experience

Thus Modern technology has enormous potentiality to deliver many numbers of benefits to the learners. Unless we use electronic technology one cannot obtain up-to-date information to face the competitive world. Using modern technology is the need of the hour and essential part of the life of every individual who wish to enrich his life.

Integrate Modern Technologies in Classroom Instruction

Teachers are encouraged to experiment and adopt a variety of innovative learner-centred, pedagogical teaching and learning approaches, in order to evolve alternatives to the traditional methods of lecture. The effective and efficient use of technology depends on technically competent educators/teachers. They should be able to appreciate the potentiality of these technologies and have positive attitude. To implement Technology based learning in the Colleges of Education so as the student-teachers while they become teachers in school would be able to utilize Technological tools in Classroom Instruction in promoting Flexible Learning Environment to meet individual learning objectives of the subject matter content.

The Four phases are there to integrate electronic technology in classroom instruction as given below

I. Developing Information and Communication Technology (ICT) literacy
II. Effective and Efficient use of Hardware and Software for teaching learning activities
III. Technology based environment, on-line support, networking and management and
IV. Adopt best innovative practices in the use of technological approach

If an Institution or individual follows the above phases to integrate electronic technology, definitely one can acquire the maximum benefits in learning. If a teacher integrates the technology in teaching, it will help the teacher to discharge the duty effectively.

Conclusion

The full benefit of this technology in the educational process is realized only by enhancing the technology skill of faculty and students, ensuring adequate system support and providing funds necessary to build a new academic framework around the new resources. The teachers and students must work together to enhance the level of utilization of electronic technology in teaching -learning and interaction among the learner community.

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