TECHNOLOGY FOR HIGH-QUALITY LEARNING IN TEACHER EDUCATION

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Abstract

The 'Teacher Education' refers to the structures and processes by means of which the student-teachers are prepared for work in schools. To equip the student-teachers various techniques, strategies and technologies are used. Technology plays a prominent role in enhancing output & quality, lowering costs, and speeding up reaction times. In any country technology is a key driver of development. The underdeveloped and emerging worlds must contend with the technologically advanced world in the context of economic globalization because the latter has an advantage in using technology to increase output and gain a competitive edge. By enabling worldwide connectivity that reshapes educational, social, economic, and cultural life, technology is revolutionizing higher education. An unprecedented amount of change is being brought about by the globalization of networks built on travel, cell phones, broadband, Internet and other information and communication tools. Higher Education Institutions must evaluate their engagement in the global environment and in an apparently open world as a result of globalization.
Keywords: Technology, Higher Education. Globalization, ICT, E-Learning

Introduction

Education is the process of encouraging student-teachers to realize their own potential and abilities. The world is becoming more linked, the environment is becoming less secure, and technology is constantly changing our relationship to information. It is an application of pedagogy, a collection of theory and practical study pertaining to teaching and learning.

The Information and Communication Technology has significantly altered many facets of our lives, especially the area of education. These areas now function in a very different manner from how they did in the past. The widespread adoption of Information and Communication Technology in education across all fields has been hampered by a number of variables. Recent developments, however, have strengthened and supported efforts to integrate Information and communication technology s into educational environments like classrooms. Learning has also involved an increasing need to investigate programme delivery efficiencies and the possibilities for flexible delivery offered by Information and communication technology. (Oliver & Short, 1997).

As we enter the 21st century, numerous other factors are exerting strong pressure on the adoption of Information and communication technology in education, and current trends indicate that as a result of the opportunities and affordances of Information and

communication technology, significant changes in the way education is planned and delivered will soon take place. Teachers should use Information and Communication Technology as a potent tool to alter a variety of classroom procedures for pupils in the field of education. Both established and new information and communication technologies have an effect on teaching and learning in the classroom.

Use of Technology Strategies in Teaching and Learning
Electronic Learning

E-Learning is an alternative to a traditional classroom learning experience. It is also referred to 'online learning', remote learning, mobile learning, digital learning or digital education. Digital Education is the innovative use of digital tools and technologies throughout teaching and learning and is usually cited as Technology Enhanced Learning or e-learning. The digital education aims to make responsible use of digital technologies and empowers educators to create more effective ways of learning within the courses they teaching.

The following are the advantages of e-learning

- E-Learning allows teachers a higher degree of coverage to deliver the content regularly. This ensures consistency in learning.
- Online Learning can accommodate everyone's needs.
- Classes can be taken from any place, at any time as preferred.
- It offers updated content and accessibility is open, secure, and uninterrupted.
- It ensures quick delivery of lessons.
- It promotes a self-paced learning process.

Virtual Learning

All educational activities that take place in non-contiguous environments were student-teachers and instructors are physically and temporarily divided are referred to as 'Virtual Learning'. Virtual learning has more interaction between students and instructors while e-Learning is more self-paced. For instance to teach the "Organs and Systems of Human" this type of teaching becomes more effective, lively and genuine. Virtual learning refers to an environment where students study a digital-based curriculum taught by instructors that lecture online via video or audio. The instruction can take place either in a self-paced environment or in a real-time environment.

Hybrid Learning

Online Learning combined with in-person classroom instruction is known as blended learning. It is occasionally referred to as "Hybrid Learning". It combines internet classroom instruction with face to face instruction and self-paced study. This learning makes use multi strategies to deliver learning by combining face-to-face interactions with online activities.

An example of hybrid learning is the flipped classroom. In a flipped classroom, online activities are completed outside of a classroom. In this way, students

Hybrid Learning
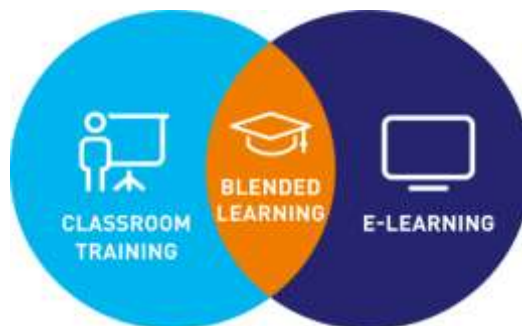
Collaborative Learning

Collaborative learning refers to a strategy in which students of different performance levels work together in small groups toward a common goal. an online collaborative learning means participants learning together in teams using information communication technologies, in the particular, the Internet, as the mediating tools .An e-learning approach where students are able to socially interact with other students, as well as instructors...Participants learning .in this process by which individuals acquire information, abilities, and attitudes as consequence of collective interaction.

Digital Resources

Digital learning resources are learning resources that aid students and teachers in the educational process their intent is to increase engagement, make curriculum development and accessibility easier, and increase student achievement. Electronic tools, methods, equipment, and resources that produce, hold or process data are known as digital technologies. Social media, web-based activities and programs, video, productivity software, cloud computing, interoperable systems, and mobile devices.

Digital Technologies and Students

By offering and supporting Information and Communication Technology leadership chances, as well as by showcasing students' digital work, schools can enable students to contribute to the development larger school community's ability in the use of digital technologies. Schools help students build a good reputation as tech-savvy kids by developing Information and Communication Technology tutors and student specialists, or by pushing students to work with their instructors and help them learn new skills. Schools reward students with positive attention and help them build a positive image as tech-savvy

children by training Information and Communication Technology mentors and student specialists or pushing students to work with their instructors and help them learn new skills.

Digital Learning

Any form of learning that is made possible by technology or by teaching strategies that effectively utilize technology is referred to as digital learning. All learning disciplines and regions of study are affected by digital learning. It includes the use of a broad range of techniques, such as: local and international collaboration; online assessment and reporting; blended and virtual learning; game-based learning; access to digital material; active engagement in online communities.

Digital Technologies in Classroom

Modification: A technological tool called modification enables the learner to substantially redesign the assignment.

Augmentation: In contrast to what you could do without the technology, augmentation is a form of technology that is a straight substitute.

Advantage of Technology Over Traditional Pedagogy

Teachers can give students the environmental clues they need to comprehend new ideas by integrating technology or video into the class. The required link or scaffold between common language and more challenging academic language can be provided by visual material. Electrically produced resources are superior to texts and other static forms of knowledge because they can be improved by user input or through direct user editing. We can state that technology is useful for reaching today's pupils because it enables students to demonstrate what they have learned in various assessments of their development. We need fresh tactics and instruments. The traditional "sit and get" method of instruction is ineffective for reaching today's population of active, involved learners.

Advantages of Digital Technologies

In a school setting, computer-assisted teaching uses the computer as a tutor. Teachers can only provide limited support for pupils' learning outside of class time. Students can continue their studies at home with the help of computers and other related digital technology, which also serves as a tutor for those who are slipping behind. Students can now study at their own speed thanks to new technology. With the help of new technologies (like the smart board, electronic readers, portable dictionaries, iPads, etc.), information can be presented in so many different ways (visually, orally, using various font sizes and colors, etc.) that almost any type of learner can take advantage of them.

Students now have access to a vast abundance of information that was previously out of their reach thanks to the internet and other forms of technology. Both teachers and pupils

have quick access to a wealth of knowledge and can share it in a variety of ways. The internet in particular has made technology, and thus schooling, more egalitarian.

Pros and Cons

Multiple media can be used to rapidly obtain and display information. There are worries that since students can now look material up elsewhere, they might not recall it. Others contend that students' use of technology is causing them to lose fundamental information and literacy skills. People's capacity to connect with one another and communicate with one another is declining. Lack of relationship and teamwork abilities prevents students from developing outside of the classroom. People with lesser income levels are among the students who do not have as much access to contemporary technology. Since computers are now a part of every classroom, it can be challenging for students to complete their assignments if they are unable to regularly access even more basic tools like a computer.

Conclusion

Technologies provides a theory and model of learning to encourage and support students to create knowledge through collaboration, to invent and explore innovative methods, and to seek conceptual knowledge needed to deal with problems. Therefore, we can conclude that the use of technology has enormous potential for training students to meet a variety of tasks and perform their own responsibilities. Therefore, teachers must understand that if they want their pupils to attain a high degree of competency, they will have to embrace technology as an integral tool in the classroom. Simply selecting a specific teaching technique, like seminars or an apprenticeship, will not be adequate in the digital era. It is doubtful that one teaching strategy, like transmissive lectures or seminars, will offer a diverse enough learning setting for all of the subject's necessary skills to be learned. For students to acquire these abilities, a rich learning setting that includes chances for exercise, discussion, and feedback is required. As a consequence, we may combine various instructional strategies.

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