

E- Learning and Teacher Education: Making Teachers for 21st Century

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Abstract

Twenty first century throughout the world is known as age of information technology. Information technology has potential to gather information, store it and display it whenever required immediately. Internet is widely used by teachers and students as it is used in business, industry, engineering and medicine. But, due to scarcity of resources, infrastructure and skilled manpower, this popular and enriched means of learning and teaching is not prevalent in teacher education institutions. Arrival of computer and internet in the field of education has changed the procedures and patterns of education. Now education knocks at the doors of students or learners. Today any one can obtain education from anywhere, at any time. A teacher, being a pivot in the process of teaching and learning, knowledge of ICT and skill to use ICT in teaching learning has gained immense importance to today's teacher. This paper mainly deals with the possibilities to incorporate e-learning strategies in teacher education and checking the need of multifaceted teachers.

Introduction

E-education is a new sensation in the field of education. It has given a new look and feel to learning. Unlike one-way teaching module in traditional teaching, E-education is a two-way learning process. It is a platform where in a student can interact with a teacher online and learn by discussion. E-learning can surpass many of the pitfalls of regular traditional class room teaching such as improper content, improper method, lack of communication, lack of efficient and skilled teachers, uncontrolled mass of students, monotonous speech, boring charts and slides etc.

The beauty of e-learning is that the new software allows the creation of very effective learning environment, which can immerse the learner in the material. Also, amazing virtual environments can simplify, clarify and create as effective learning environments. Web audio-video conferencing and live broadcasts enhance the interaction levels. Through e-education, more variety in learning experience with the use of multimedia and the non-verbal presentation of teaching material can be provided.

Only a creative and enthusiastic teacher can incorporate the modern development of ICT in the classroom very successfully. So, the teacher educators should be encouraged, through training and support, to use the web and other information technology systems in their teaching. The coming generation of teachers will definitely be aware about the computer-based teaching. The students opting for teaching as a profession need to be given wider and extensive exposure to training by e-learning. Once they are confident about the various e-learning strategies and processes, they will themselves feel encouraged to teach their students at school using e-learning. This paper mainly deals with the possibilities to incorporate e-learning strategies in teacher education by highlighting the following possibilities.

E-Teaching Aid

The goal of e-Teaching aid is to develop the learning capacity of students and increase the teaching productivity and effectiveness of instruction with the help of advanced computer-based technologies. E-teaching aid needs to become an integral part of the education process. E-teaching aids are available for all subjects. Students get real life experience through the use of e-teaching aids. The examples, scenarios, voice etc. relevant to the subject can be exhibited through e-learning technique. The concepts like Tsunami, Volcanic eruption, spring tide, deforestation etc. can be explained very effectively by using three dimensional techniques.

E-Assessment

E-assessment is the use of information technology for any assessment related activity. E-assessment can be used to assess cognitive and practical abilities. Cognitive abilities are assessed by using e-testing

software and practical abilities are assessed using e-portfolios or simulation software. Continuous and comprehensive evaluation is made possible through e-evaluation.

E-Lectures

Students can get e-lectures of eminent personalities from anywhere through internet. By using all the media of print, audio, video, animation and simulation, content in e-education can be developed in the formats of e-lectures, multimedia material in distance education format, interactivity-based content out of questions! - answer, seminar, workshops, assignments and projects done by students. With the use of sound, animations and graphics, the lecture can be made more effective and interesting, concepts of philosophy, psychology, sociology etc. can be communicated more easily and effectively.

E-demonstration

Through internet, students will be able to get an opportunity to observe many model classes taken by experts in the field. The traditional classroom also provides demonstration classes to teacher trainees but in a limited number due to lack of time, expenses etc. Through e-demonstration we can overcome the above-mentioned limitations involved in the traditional teaching.

E-Board

For effective teaching, the teacher can use e-boards and e-pens for graphical representation. E-board is an easy-to-use online! service that allows any teacher to create a website in seconds. E-pen is a new digital pen designed for drawing, handwriting and easily editing creative projects and photos on a PC or laptop. By using e-pen, we can write, draw and edit photos in real time on screen.

E-simulations and E-games

E-simulations and e-games will give practical exposure to the students. Simulation can be used to show the eventual real effects of alternative conditions and courses of action. Through e-games we can create interest and learning readiness in students.

The teacher trainees need primarily the use of multimedia packages available for their teacher preparation, preparation of their own materials out of the available sources for their teaching in indigenous way, the sources and websites available to get the relevant information in their methods of teaching school subjects and using them during their teaching practice in the schools. Given the current prevalence of usage of the internet in education, it is imperative for teachers to acquire the relevant skills to use the internet, as well as acquire the right attitude for the purpose of classroom instruction. This ensure that teachers will make the right selection of relevant and appropriate information for their students.

Learners in the 21st Century

One of the basic functions of education is preparation of students for life. At prese knowledge is regarded as the main source for the development of India. Dominating information rich societies are controlling the information all over the world. Developed nations an incorporating ICT for better pedagogical methods to meet global learning situations. Students should be made capable enough to construct knowledge and accumulate knowledge. Because of the influence of ICT now students can learn much more than the teacher teaches in the conventional teaching-learning environments. At present virtual education has eliminated the barriers of distance and time. So, our vision are

- (i) to make both teachers and learners work with others at remote sites and
- (ii) to provide our students and teachers access to experts in Universities, research laboratories where distance and time are not barriers

This may create educative environments characterized by respect for personality, participation in decision making and provide freedom of expression

Need of a Multifaceted Teacher

"Teacher performance is the most crucial input in the field of education". The teaching and learning process has progressed from class room lectures and seminars to video-disks and CDROMs to web-based training and wireless communication. We need teachers to use hardware and software technology for assessing, gathering, manipulating and communicating information. A teacher of the future should be able to integrate the use of ICT into teaching through various approaches like:

1. e-learning (any one at any time at any place using web-based, computer-based, virtual class room)
2. e-mail (communication, correspondence)
3. e-publishing (enables increased flexibility) BLOG, face book
4. e university (virtual universities)
5. e-book (digital version of books)
6. e-journals (web-centric journals)
7. e-conferences (use of software technologies)
8. e-library

Apart from using the above, the teacher should be able to develop multimedia e-books in various subjects which could be used for distance learning mode and for in-service training programmes.

Conclusion

Realising the need for teachers to be proficient and skilful in the usage of the e-learning strategies for classroom instruction, all teacher programmes should be designed to incorporate e-learning strategies in the instruction. E-based resources can serve to facilitate classroom management tasks, assist with academic tasks, or provide support for instruction. The e-learning method will definitely help teachers in harnessing technology to make teaching learning programme more effective. Every learner should not only be a computer literate but also develop competencies in effective usage of computers and all the technologies that are related to learning.

References

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