ROLE OF ADVANCED ICT FOR FUTURE TEACHER EDUCATION

Suchita Fatale & Rachana Shinde.

Savitribai Phule Pune University, India

Abstract

Information and Communication Technology (ICT) are increasingly becoming crucial part of the education system. ICT has changed the style of functioning of the educational system and its governance. This paper is considering the rapid spread of ICT applications has brought about markedly drastic technological, social and economic transformations. These changes have caused educational institutions, administrators, teachers to rethink their roles, teaching and vision for future. An exploratory case study was designed to obtain pre service teachers' expectations of and attitudes toward the learning and integrating of Information and Communication Technologies (ICT) into their teaching and learning. Implementation of the sequential mixed method research design resulted in emerging themes related to participants' social conditions that impact their perceptions and attitudes regarding the ICT and beliefs about the use of ICT in their future careers. This study could be employed as a useful reference for the odd sign of an ICT curriculum for future Teacher Education programs.

Key Words: *Higher Education, ICT Teacher Education, ICT Use.*

1. Introduction:

Information, Knowledge, and Communication Technology plays very important role in 21century .The ICT changed the way of imparting education in modern era. The role of Information and Communication Technology (ICT) plays a great role in strengthening the three traditional branches that make up the mission of higher education i.e teaching, research and service to the society. ICT changed the style of functioning of the educational system and its governance with the help of digital data, its storage, retrieval, manipulation and transmission. ICT works in three ways: - (i) communication and decision implementation, (ii) automating tedious task, and (iii) supporting new and existing tasks and processes. ICTs can help process information, create knowledgebase and make them available wherever and whenever necessary. Information and Communication Technologies (ICTs) have tremendous success in providing services at reduced costs to the people's door steps i.e online shopping. ICTs is trying to do same for making the higher education available to all students throughout the country at a lower cost. As a result, on one hand people will have the access right on higher education and on the other hand will gain the necessary knowledge, skills, and experiences to serve the nation and prosper accordingly.

 ICT enabled schools, where students are attending their classes, discussing with teachers, accessing learning resources, seating exams, joining forums/clubs, submitting

assignments etc. virtually interactions between teacher and students. having the facility of real-time ICT is defined as new information-processing and information-transmitting technologies that include computer-related commodities and technologies such as broadcasting and wireless mobile telecommunications etc. Personal computer (PC) that connects Internet has become a vital tool for communication during the past few decades since its proliferation among the masses. It is observed that penetration of ICT is faster in developed nations rather than developing nations. The penetration of ICT can be linked to socio-economic conditions of a nation such as education, freedom for information exchange, promotion of basic telecommunications infrastructure and market. Its helps in growth pattern of enrollment and the relationship between level of education and diffusion of ICT; focuses on Internet and personal computers (PCs). ICT is defined as "diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information". Technologies included in ICTs are: Radio and Television (broadcasting technology), Telephony, Computers, and the Internet helps in providing e-learning and open and distance learning.

The major benefit of ICT implementation in education is it extending courses of choice to students of different backgrounds, cultures, perspectives. Learners are free to participate in learning activities at their convenience through online technologies. Eminent teachers from different parts of the country and abroad can be utilized for teaching at their convenience through mobile technologies and seamless communication technologies that support 24x7 teaching and learning for instance these education can be provided through Teleconferencing, Videoconferencing, Web-based conferencing, Audio conferencing and other ICT technologies.

Statement of Aim: To study role of advanced ICT for future teacher education

2. Objective:

1. To identify the nature of ICT.

2. To highlight the expectation.

Description of objectives:

Nature of ICT:

Information and Communication Technologies (ICT) in educational process. A key objective of the course is the acquisition of the necessary expertise and the adoption of attitudes on basic approaches (models) for the use of ICT in learning process. The course provides students with the opportunity to:

• perceive the meaning, and scope of ICT in Education,

• understand ICT supported teaching learning strategies,

• develop understanding of the ICT effects to learning, working life and society,

• be familiar with ICT tools, applications and services for education,

• obtain the ability to design and create educational material and web-based information systems for teaching and learning,

• evaluate instructional material / system / service,

• make reasoned judgments about when and how to apply aspects of ICT to achieve maximum usefulness.

Highlights of ICT:

1.   Digital convergence and education: General Impact of Technology on Education

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2. e-learning: technological infrastructures and ICT services and tools for educational process.

3. Educational software: implementation, exploitation and evaluation.

4. Educational material: planning, development, evaluation, e-learning standards (AICC, SCORM, IMS)

5. Open distance learning: asynchronous teaching infrastructures (CMS/LMS platforms), synchronous teaching infrastructures (video conference, VoIP)

6. Learning theories: pedagogical issues involved in the integration of ICT into classroom practice.

7. Collaborative learning tools, international , actices and standards (Web.2 tools, concept maps, scratch, etc.)

3. Need and Importance

We can create a learning environment by integrating constructivist theory and information and communication technologies into our educational institutions. Information and communication technology (ICT) is a generic term, which is being used for collecting , storing, editing and passing on information in various forms. Increasingly rapid advances in ICT will have profound impact on way teacher teach and learners learn in near future. The major benefit of ICT implementation in education is it extending courses of choice to students of different backgrounds, cultures, perspectives. Learners are free to participate in learning activities at their convenience through online technologies.

4. Conclusion:

Rapid changes in technology will ensure that ICT will proliferate in the classroom. It is predicted that there will be many benefits for both the learner and the teacher, including the promotion of shared working space and resources, better access to information, the promotion of collaborative learning and radical new ways of teaching and learning. Ultimately, the use of ICT will enhance learning experiences for children, helping them to think and communicate creatively, and work collaboratively. It will also prepare our children for successful lives and careers in an increasingly technological world.

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