ISBN: 978-93-81658-14-7

A NEW VISION: SMART EDUCATION AND E-LEARNING

(A Peer-reviewed Research Papers of
the Second International Conference of Teacher Educators)

Christian College of Education
Marthandam, Kanniyakumari District, Tamilnadu.

VOLUME - II

in co-ordination with

Estd. 1996

Kanniyakumari Academy of Arts and Sciences
(A Multi-Discipilinary Researchers' Forum)

KAAS Publications 2016
Nagarkovil

TEACHER EDUCATION IN A NEW PARADIGM: ICT INTEGRATED PEDAGOGY

***M. SREEDEVI AND **R.P. DEEPA**

**M.Ed. Scholar*

*** Assistant Professor, N.V.K.S.D. College of Education, Attoor.*

ABSTRACT

In this globalised world education around the world is redesigned are under increasing pressure to use the new information and communication technologies (ICTs) to teach students the knowledge and skills they need in the 21st century. Paradigm shifts in teacher education in recent years envisions a new type of learning culture that demands ICT integration with pedagogy. Implementing the pedagogy-technology integration in teacher education and managing the changes are highly complex and possibly one of the most challenging tasks for any teacher education institution. ICT has to be infused into pedagogy to meet the global demands of the learners. This article highlights the paradigm shifts in pedagogical practices using ICT and advantages of ICT integrated pedagogy.

Key words: ICT Integrated Pedagogy, paradigm shift, teacher education.

Introduction

Teacher education institutions are now faced with the challenge of preparing a new generation of teachers to effectively use the new learning tools in their teaching practices. For many teacher education programmes, this daunting task requires the acquisition of new resources, expertise and careful planning. The UNESCO Information and Communication Technologies in Teacher Education (2002) notes that the technology-based global economy poses challenges to countries due to the increase in the flow of information, knowledge, skills, technology, products, capital, and people between nations. The

new era of global trends create new challenges to educational systems to prepare students with the knowledge and skills needed to thrive in a new and dynamic environment of continuous technological change and accelerating growth in knowledge production. The UNESCO World Education Report (1998) notes that the new technologies challenge traditional conceptions of both teaching and learning and, by reconfiguring how teachers and learners gain access to knowledge, have the potential to transform teaching and learning processes. ICTs provide an array of powerful tools that may help in transforming the present isolated, teacher-centred and text-bound classrooms into rich, student-focused, interactive knowledge environments. To meet these challenges, educational institutions must embrace the new technologies and new ICT tools for teaching and learning. They must also move toward the goal of transforming the traditional paradigm of learning. The Information and Communication in education is reflected in the design, preparation and production of textbooks and other instructional materials for educational institutions. The National Council of Educational Research and Training (NCERT) New Delhi has taken up a major role in this gigantic task. The recent developments in technology have changed the world outside the classroom and it becomes more eye-catching and interesting for a student rather than the classroom setting. ICT is becoming increasingly important in our daily lives and in our educational system. Therefore, there is a growing demand on educational institutions to use ICT to teach the skills and knowledge to the students in the 21st century.

Paradigm Shifts in Pedagogical Practices using ICT

ICT refers to technologies that provide access to information through telecommunications. This includes the Internet, wireless networks, cell phones, and other communication mediums. It is a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. (http://techterms.com/definition/ict).The integration of ICT into the teaching and learning always places pedagogy over technology. It is not the

only concern to master ICT skills, but rather it involves using ICT to improve teaching and learning. The major emphasis of ICT infusion in pedagogy should be such that it tends to improve learning, motivate and engage learners, promote collaboration, foster enquiry and exploration, and create a new learner centered learning culture. It creates pupil to become independent and autonomous learner, and promotes initiation, creativity and critical thinking. Learners are expected to collect, select, analyze, organize, extend, transform and present knowledge using ICT in authentic and active learning paradigm. Teachers are expected to create a new flexible and open learning environment with interactive, experiential and multimedia based delivery system. ICT should help teachers and learners to communicate and collaborate without boundaries, make learners autonomous and allow teachers to bring the whole world into classroom activities. It is ultimately important to understand the roles of ICT in promoting educational changes. ICT tools are productive, interesting, motivating, and interactive and provide face-to-face instruction. The use of ICT satisfies the diverse needs of all kinds of learners characterized by all kinds of socio-cultural conditions including the diversity of multiple intelligences. Teachers should continue to learn through their lives new ways of using technology for the growth of their learners as well as the very systems of education. (Majumdar, Shyamal 2006)

India recognized the importance of Information and Communication Technology (ICT) in education ever since the dawn of its independence. Different policies have been formulated with ICT and its integration in education. Some of these are Computer Literacy and Studies in Schools (CLASS); Information and Communication Technology in Schools (2004); The Information Technology Act (2000); The Science and Technology Policy (2001); National Task Force on Information Technology and Software Development (1998); ICT Policy in School Education (2009). Taking into account the efforts being made by the government for successful ICT-pedagogy integration, it can be said that India is heading towards

the second stage, i.e. the foundation stage of ICT-pedagogy integration (Senapaty, H.K. (2001). Broadly ICT tools help to open up opportunities for learning by enabling four major key processes in transforming teaching and learning as follows:

- Access ideas and information from diverse sources through searching, locating, selecting, and authenticating material in a wide range of multimedia forms
- Extend ideas and information through processing, manipulating, analyzing & publishing material in different multimedia forms
- Transform ideas and information into new or different forms through synthesizing, modeling, simulating and creating material in many multimedia styles and formats
- Share ideas and information across local, national and international networks by interacting electronically with others in actual and/or delayed time.

Advantages of ICT Integrated Pedagogy

The integration of ICT with teaching and learning has produced some of the significant positive gains in learners' knowledge, skills and attitudes by providing the following key advantages

- helps teachers make the lesson more interesting.
- helps teachers explain things more clearly to learners.
- uses in most curriculum subjects.
- encourages teachers to vary the ways in which they organise pupils in their lessons, for example computer partners, pairs, larger groups.
- motivates and stimulates learning.
- encourages analytical thinking and divergent thinking.
- provides students with immediate access to richer source materials.
- explores and represent information dynamically
- makes socially aware and more confident

- communicates effectively about complex processes
- develop better understanding
- provides greater problem solving and critical thinking skills

Conclusion

35 iilCT is an integral part of modern life. Technology and teacher professional development play major role in educational reforms. ICT integrated pedagogy promotes effective learner centred instruction and makes them independent thinkers. It also encourages higher order thinking skills and help to construct knowledge socially. Thus the use of interactive technology should be integrated with pedagogy that teacher can use themselves in their classroom.

REFERENCES

Information and Communication Technology (ICT). Retrieved from (http://techterms.com/definition/ict)

Majumdar, Shyamal. (2006) Emerging Trends in ICT for Education & Training Retrieved from http://www.unevoc.unesco.org/fileadmin/up/emergingtrends inictforeducationandtraining.pdf

Senapaty, H.K. (2001). Implementing Pedagogy Technology Integration in Teacher Education.

Retrieved from http://www.educationindiajournal.org/journal/116Implementing.pdf.

UNESCO. (2002). UNESCO Report: Information and Communication Technologies in Teacher Education, A Planning Guide, Division of Higher Education, UNESCO.