ICT IN TEACHER EDUCATION: PROBLEMS AND ISSUES

KALAMATI GURUVULU
Principal, Mother College of Education, Kotananduru
East Godavri Dist., A.P.

Introduction

Information and communication technologies (ICT) have become commonplace entities in all aspects of life. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavour within business and governance. Within education, ICT has begun to have a presence but the impact has not been as extensive as in other fields. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centered learning setting. With the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important.

The rapid developments in technology have made tremendous changes in the way we live, as well as the demands of the society. Recognizing the impact of new technologies on the workplace and everyday life, today's teacher education institutions try to restructure their education programs and classroom facilities, in order to minimize the teaching and learning technology gap between today and the future. This restructuring process requires effective integration of technologies into existing context in order to provide learners with knowledge of specific subject areas, to promote meaningful learning and to enhance professional productivity (Tomei, 2005)

However, many recent research studies on this theme shows that many institutions are failing to integrate technology into existing context. Bauer & Kenton (2005) stated in their study that although teachers were having sufficient skills, were innovative and easily overcome obstacles, they did not integrate technology consistently both as a teaching and learning tool. Reynolds, Treharne & Tripp (2003) also underlined continuing problems in the adoption of ICT by teachers and stated the need for further research on how ICT can improve education.

The role of education is the most pivotal factor in the development of any society as well as of nation as a whole. It was rightly remarked by Kothari Education Commission (1964-66) that, "The destiny of India being shaped in its classrooms". This statement shows the importance of education in modern India. But this educational should be of high quality, because only quality education can help the country to progress and bring about desired changes among its people.

If the education needs to be qualitative, it should continuously be in tune with the contemporary changes and developments in the society. That is why there is so many hue and cries for the changes needed to update, and assess and restructure the existing system of education. Teachers of today should realize the significance and need for presenting different learning experiences so as to overcome the individual differences among pupils and make attempts to effectively use media and methods generated by Educational Technology.

The advantages of technology should be exploited to the maximum to raise the quality of education and also to give meaning to teaching learning process. The National Policy on Education (NPE 1986) has emphasized upon the use of computers in higher education and for the first time in the history of Indian Education, NPE (1986) has observed that, "Educational Technology will be employed in the spread of useful information in the training and retraining of teachers to improve the quality of education". Although, several efforts had been made in the past to use technological inputs and various educational technology aspects for improving the quality of present teacher education system.

Advantage of ICT

Before embarking on an elaborate discussion of the issues involved in teacher training by deploying ICT, it is essential to understand the advantages of ICT in a classroom situation. These advantages include:

➢ Opportunities to deploy innovative teaching methodologies and to deploy more interesting material that creates an interest in the students;

➢ Enables better management of classroom and students thereby improving the productivity of the tutor as well as the taught;

➢ Enables the teacher to concentrate on other tasks such as research and consultancy;

> ➢ Enables optimum utilization and sharing of resources among institutions thereby reducing the costs of implementing ICT solutions.

Issues

It is pertinent to note that there are a number of issues that need to be understood before delving into a discussion of the use of ICT in higher education and teaching training. They include:

> ➢ Problems of providing physical ICT infrastructure and issues related to maintenance, upgrading this infrastructure;

> ➢ Exploiting increased technological convergence to benefit the stakeholders;

> ➢ Evolving coherent strategies that integrate information technology into the pedagogical process;

> ➢ Optimum utilization of internet in teacher training;

> ➢ Frequent training and upgrading of skills to faculty members, and

> ➢ Creating, maintaining and updatinng digital resources that are part of the curriculum;

> ➢ Overcoming the digital divide and going beyond the `basics`.

> Each of these issues will be discussed below and alternatives will be suggested. These alternatives/solutions are based on the best practices in different parts of the world.

Integrating Technology into the Pedagogical Process

It has been pointed out that irrespective of the nature of technologies deployed, human monitoring, regular enquiry and the use of data in the teaching and learning are essential (Leonard R Newton, 2000). The biggest challenge in the effective utilization of ICT in teacher training and its subsequent use the classroom situation is the creation and integration of effective processes and systems that enable its utilization in classroom situations spanning different social and cultural contexts. It needs to be kept in mind that ICT will become an effective tool only if it is a effective pedagogical tool. This would mean the creation of interesting and effective lesson for the students. At the same time it would entail a complete grasp of

various aspects of the latest developments in the subject as well as technology oriented teaching methods on the part of the faculty.

ICT has the capability to prepare a learner for a rapidly changing world scenario. They may use ICT as a tool to find, explore, analyze, exchange and present information as per their need. The capabilities of ICT may be used for literacy mission in the following ways.

- Increasing access through the distance mode

- Providing a knowledge network to the learners

- Enhancing literacy

- Broadening the availability of quality e-contents

- Developing quality e-contents

- Providing contents on demand

- Professional development arid recurrent training of teachers.

- Creating a literacy conducive environment

- Virtual classrooms.

Teachers and Teaching

There might be a misgiving that by way of the use of ICTs the role of the teachers gets diluted. It is neither true nor does the teaching and learning practices get changed. The traditional teaching skills, knowledge and practices have the same importance if not more in the present paradigm of knowledge management where ICT acts as a very important tool as explained above. ICT does not enhance the competencies of the teacher. If a teacher lacks the basic skills of classroom teaching then his performance will be even more disastrous in front of the television camera. The TV camera cannot help in improving the qualitys of teaching, it only increases the outreach of the very competent teachers who are otherwise inaccessible in rural and remote areas. In fact the teachers are required to undergo professional development and training in respect of acquiring the capabilities of tele-teaching. They should also be open to the idea of exploring new technologies and knowledge areas.

ICT Impact Attributes in Education

- Relates classroom experience to work place, provide opportunity for connection between classroom and world.

- Enhances learning opportunities as resources to the students and teachers

- Stimulates, motivates and sparks students' appetite for learning and helps to create a culture of success.

- What is learned and how much

- How it is learned

- When it is learned

- From whom it is learned

- Who is learning

- What it costs

- Conventional teaching has emphasized content.

- Teachers teach through lectures and presentations interspersed with tutorials

- Learning activities are designed to consolidate and rehearse the content.

- Contemporary settings encourage curricula that promote competency and performance.

- Curricula are now emphasizing capabilities

- More concerned with how the information will be used than with what the information is competency & performance –based curricula

- Access to a variety of information sources;

- Access to a variety of information forms and types.

- Student-centred learning settings based on information access and inquiry; competency & performance-based curricula

- Learning environments centred on problem-centred and inquiry-based activities;

- Authentic settings and examples;

- Teachers as mentors rather than content expert.

Conclusion

Now the stage has come to stay in the society that without ICT no one can perform their business. In education its role is very much significant and necessary to use for the empowerment of the society and for the cause of education. It is well said that all information cannot be converted into knowledge. The information which directly affects one's profession and needs will certainly transform into knowledge. This incredible knowledge, the society should make use of the available opportunity and in whatever form the ICT is for the upward progress. But at the same time the society should be too cautious that not to allow the ICT as a master. Perhaps it may be exclusive in certain aspects and should be allow as a servant to the learned human resources for the enhancement of knowledge and betterment of the prospering society.

Reference

1. Sudhakar Babu, S. (2007) Technological Advances and Role of ICT in Teacher Training and Higher Education, University News, Vol.45, No.26, June 25-July 01. Pp13-14

2. Ajay Kr Gupta and C.K.Gosh (2008) Literacy Elementary Education and Teachers' Training in the state of Madhya Pradesh by Effective Use of ICT. Univeristy News, Vol.46 No.40,October 06-12, ISSN:0566-2257, Pp.12-13.

3. Seema Jain (2011) Inclusion of ICT in Higher Education: Technology Literacy for Today and Tomorrow. University News, Vol.49. No.41, October, 10-16, Pp.12.

4. Chandan Tilak Bhunia and C Onime (2011) Planning for ICT-based Education in Changed Scenario to Meet the Global Gaps and Deficiencies: Case Studies. University News, Vo.49,(16), April, 18-24, Pp.16.

5. Sampath, S. (2011) Interaction among the Learner, Teacher, Curriculum and Educational Programme with ICT. University News, Vol. 49 (23) June 06-12, 2011, Pp.17.