

Role of Information and Communication Technology in Teacher Empowerment

Dr. Jignesh B. Patel

Assistant Professor,

Children's University, Gandhinagar

Mo. 9429429550, Email: drjigp@gmail.com

Received : 16-04-2019

Accepted : 21-05-2019

Abstract

Information communication and technology are the buzzing words in present day situation especially in teaching and learning. Information and communication technology play a crucial role in the lives of learner and teacher both. The world is changing rapidly and having a discourse and relying on ICT for the better outcomes along with the strategies and possibilities. In these challenging situations a teacher finds blessing by imbibing ICT and empowering oneself. The process of empowerment the teachers in academic situation is seen as enriching oneself with information communication and technology. The teaching learning process becomes smooth and result oriented and value imbibing. The present paper is an attempt to prove that the teacher or the educator can be empowered by Information Communication and Technology.

Keywords: *Information and Communication Technology, Empowerment.*

Introduction :

In the 21st century both school education and society have witnessed unprecedented technological advancements, communication revolution, periodical reforms in school curriculum, major reforms in the textbooks cum workbooks and other teaching learning aids, promoting activity based and joyful learning, introduction of self learning and group learning activities besides teacher directed learning. Teacher is now expected not only to inculcate knowledge regarding the content of the subjects in the four walls of

classroom but is expected to sustain interest of the students in the subjects as well as in the teaching learning process by encouraging students thinking. To meet the new challenges and expectations boldly and to play their role meaningfully, teacher has to teach the students not only the art of learning but also the art of living and working in a society, so teachers need to be educated for making maximum use of available technological resources which will ensure development of competencies and abilities among them.

Technology has become the driving force of change in the modern society. It has altered traditional economic structures, helping communities overcome convention and the ways they communicate. With the advent of Information and Communication Technologies, access to knowledge has become a potent force for transforming social, economic and political life globally. It is therefore time to collectively change our approach to the teaching-learning process, and particularly, take advantage of the power of technology to improve learning outcomes, enhance economic opportunities, foster greater creativity and realize the dreams of students.

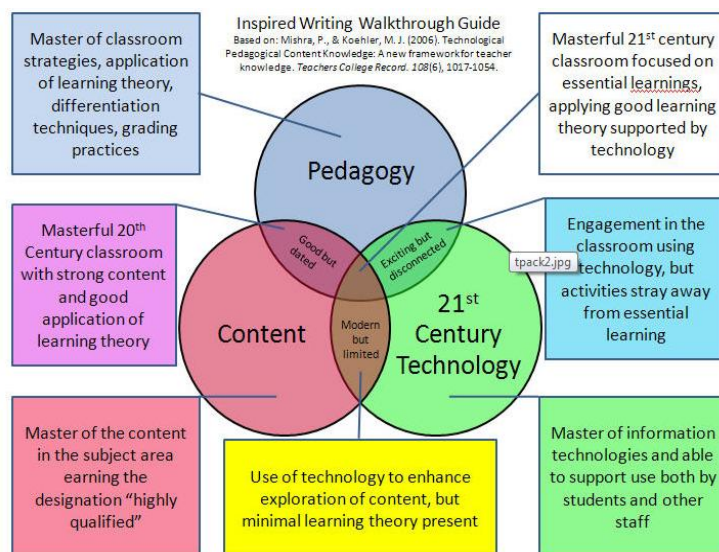
Necessary training to be provided to empower teachers

Quality of education has to be global and the educational standards have to be raised at all levels and made comparable with the best in the world. So the system needs to be preparing such man power that can face the challenges of this changing world scenario where technology touches every aspects of life. In order to explore the potential of information technology it is necessary to enhance the awareness among the intended users, which can be created among teachers by designing special courses to offer them for providing training and education in different area of educational and information technology.

Teacher being a pivot in the process of teaching learning knowledge of ICT and skills to use ICT in teaching learning has gained immense importance. Teacher is expected to know successful integration of ICT into his/her

subject area to make learning meaningful. This knowledge development training has gained much importance with the notion that exposure to ICT is helpful to increase student teachers willingness to integrate it into their classroom.

In order to make the teaching learning process effective teacher should not only know about a particular technology but should have a proper knowledge to integrate technology, pedagogy and content. Merely using technology will not be helpful rather it is required that teachers use technology in the right context. True integration of technology is to understand and thereby negotiate the relationship between three components viz., content, pedagogy and technology. Good teaching is not simply adding technology to the existing teaching and content domain. Rather, the introduction of technology causes the representation of new concepts and requires developing sensitivity to the dynamic, transactional relationship between all three components suggested by TPCK (Technology Pedagogy Content knowledge) framework (Koehler 2005).



Although pre-service teachers do have a degree of knowledge with regard to information and communication technologies (ICT), "they have little know-how or techno-pedagogical ability with which to integrate those technologies into their teaching practice" (Karsenti 2001, 35). Preparing teachers to use technology effectively is a major area of concern for teacher education. Effective technology use includes such activities as linking curriculum outcomes with various technologies, establishing a learning context of discovery and process in the use of technology, collaborating with others both face-to-face and virtually to achieve learning outcomes, simulating real-world environments, and assessing outcomes.

Thus there is a need felt that every teacher education institutions gives enough training about theoretical and practical know how of ICT and to integrate the same in their teaching. The author feels that certain point needs to be taken care while providing pre-service training to student teacher. Some of them are:

- Student-teachers need to be trained to find and use appropriate stored information, with the help of ICT based models, create sequences of instructions, plan and control devices and achieve specific outcomes, generate, develop and organize their work and evaluate.

- Student-teachers should be enabled to identify appropriate and inappropriate media from curricular and technical perspectives and the advantages of media combination. "When teachers are not given a say in how the technology might reshape schools, computers are merely souped-up typewriters and classrooms continue to run much as they did a generation ago". (Cuban, 2003).
- Student-teachers should be trained to select appropriate information sources and ICT tools to prepare educational kit for dealing with specific tasks taking into account ease of use and suitability in relation to the content area of subject matter.

Various ways to integrate ICT

The UNESCO planning guide for ICT in teacher education (Resta, 2002) quotes three key principles for effective ICT development that were put forward by society for information technology and teacher education (SITE)

The first principle is that technology should be infused into the entire teacher education programme meaning that ICT should not be restricted to a single course but needs to permeate all courses in the programme.

The second principle is that technology should be introduced in the context according to this principle, particular ICT applications like word processing, databases, spreadsheets and telecommunication should not be taught as separate topics but rather encountered as the need arises in all courses of the teacher education programme.

The third principle is that students should experience innovative technology supported learning environments in their teacher education programme. This requires that students should see their lecturer engaging in technology to present their subjects for example utilizing power-point or simulations in lectures and demonstrations. Students should have the opportunity to use such applications in practical classes, seminars and assignments.

The million dollar questions which rises over here are

- ☐ When we talk of integrating ICT in teacher education, the teacher educator needs to be oriented in the areas of ICT. But the question here is with a huge backlog of ICT untrained teacher manpower how to accomplish this task? Can we use ICT to overcome this?
- ☐ What mechanisms should be adopted to make ICT adaptable?
- ☐ How can one keep pace with growth of ICT?
- ☐ How can one handle the problem of obsolescence?

- ☐ How can one tune the instrument (education) to adequately respond to such requirement?
- ☐ If teachers are using ICT only to some extent then to what extent students must be using ICT for their educational purpose?

Conclusion :

Though there is tremendous technological evolution, but technology, pedagogy content are yet to be integrated. Techno-pedagogic divides need to be removed and the integrated technology pedagogy content needs to be universalized.

References :

1. Koehler Matthew J., Mishra Punya, (2005). "What Happens When Teachers Design Educational Technology? The Development of Technological Pedagogical Content Knowledge", *Journal of Educational Computing Research*, Vol. 32 (2) 131-152.
2. Cuban, Larry; Kirkpatrick, Heather; Peck, Craig (2001). High Access and Low Use of Technologies in High School Classrooms: Explaining an Apparent Paradox. *American Educational Research Journal*, Vol. 38 (4) 813-34
www.edutechwiki.unige.ch/en/Teacher_empowerment
3. Beaudin Lorraine and Hadden, C Technology and Pedagogy: Building Techno-pedagogical Skills in Preservice Teachers.