

**USING ICT IN EMPOWERING THINKING SKILL FOR TEACHER EDUCATION****Kamini Harichandra Athawale***Assistant Professor Genba Sopanrao Moze College of Education, Pune.***Abstract*****Teachers make the difference:****The good teacher instructs**The excellent teacher invites**The superior teacher involves**The great teacher inspires. Robin Forgarty Chicago,(1994).*

Today is the era of Information Communication Technology every sector of life is influence from ICT. So today efficiently in education. Teacher are the pillars of nations. So they should be well equipped with the latest knowledge's in their subject by undergoing orientation and refresher courses, seminar etc. Management skill, Communication skill, good thinking skill, good qualities to inculcate among the teachers. So, A teacher with technology is the need of hour. The techno-teacher is one who integrates the content with technology in the classroom. The teacher has to use the simple technology to higher technology that is Black-Board to space-Board the Information Communication Technology. Heralds the world of knowledge on the screen hence the learners learning will be enhanced in a split of second meeting the demands of the society at large. The author asserts that "Teacher Education system empowered by ICT- driven infrastructure can have a great opportunity to come up to the center stage and ensure academic excellence, quality instruction and leadership in a knowledge based society". Alvine Toffeler Thinking skill is the most important in teacher education. if we have to sustain quality in education, we must focus on thinking skill in Teacher education. It plays a vital role in developing quality education. Education is the backbone of a nation. ICT based tool are very vital role in Teacher Education, If teacher think creatively with the help of ICT ,They can improve their teaching profession and concentration to teach their teaching content with new tacttcks.ICT based education provides proper guidance for Teacher, How to think about their content knowledge, How to make their teaching method creatively ,How to collaborate their own knowledge with technology and How to communicate each other with the help of various direction ex. students , his colleagues and all over education system. ICT based are available to help learners to think learn to collaborate and to communicate with other superior position.



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Introduction:

Present era is the era of Information Communication Technology. Every sector of life is influence from ICT, Teaching sector is not except from that. So today is the need to Use ICT effectively efficiently in Teacher education.

According to John Daniel Assistant Director-General for Education UNESCO "Education system around the world 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". With the emerging new technologies, the teaching profession is evolving from an emphasis on teacher-centered, lecture-based instruction to student centered, and interactive learning environments. Designing and implementing successful ICT-enabled teacher education programmes is the key to fundamental, wide-ranging educational reforms. So, A teacher with technology is the need of hour. The techno-teacher is one who integrates the content with technology in the classroom. If we have to sustain quality in education, we must focus on thinking skill in Teacher education. Thinking skill plays a vital role in developing quality education with the help of ICT. Educational technologies have too often tried to do the thinking for learners, to act like teachers and Guide the learning.

Jonassen (2000), has classified ICT based cognitive tools into the following categories: conversation tools, semantic organization tools, dynamic modeling tools, interpretation tools and knowledge construction tools. When learners use technologies, an intellectual partnership between the learners and computer is established where the computer amplifies the learners thinking. ICT based cognitive tool are designed to make learners think harder about the subject matter being studied while generating thoughts that would be impossible without the tool.

Need:

In India has a strong education system and one that is widely recognized for having produced generally high levels of academic achievements among students. The general perception is that the system was producing students who were muggers rather than critical and creative thinkers. The increasing numbers of students scoring distinctions at the 'O' and 'A' level examinations indicated that the students were only "exam smart". Gardner has lamented that 'successful' students, in spite of their high grades and accolades from their teacher "typically do not display adequate understanding of the material and concepts with which they have been working"(1991:3) besides developed countries are focus on the people ability. They encouraged people to adopt the new technology for rapid change.

Many countries believes that the development of thinking individuals and the learning of creative thinking and learning skills are essential because good thinker can be make good citizenship. If we use ICT-based tool for teacher education for grow up thinking skill, It can become more helpful for teacher and beside for their students because good teacher can make good thinkers. ICT based are available to help learners to think learn to collaborate and to communicate with other superior position.

Importance:

Educational technologies have too often tried to do the thinking for learners, to act like teachers and guide the learning. "Students cannot be correctly using cognitive tools without being engaging in higher order thinking skills". (Jonassen,1996)

ICT develops the ability of self learning and interacting individually, as the learner attains vast experiences effectively, efficiently and expeditiously. ICT is a powerful new development with ambitious role in teacher education, Digital and Internet-based multimedia transforms the present trend in the field. Information Communication Technology, primary computers and telecommunication networks, can be used as tools for developing thinking skills. Computer applications have been adapted or developed to facilitate critical thinking and higher-order learning. If teacher give information about ICT in their students. They construct knowledge bases, expert system and multimedia presentations that represent

personally relevant and meaningful knowledge engaging them in higher order, mindful thinking and learning (Salomon and Globerson,1987).

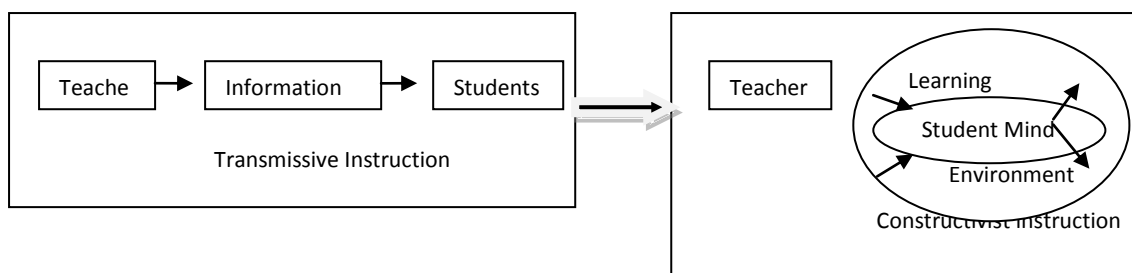
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Teacher like a doctor must remain current in their knowledge base and critical understanding. Teacher must know the most current research and practice which can be used effectively to match particular teaching procedures to students with particular needs. Such goals are not ease to achieve. So it requires the re-organization of the pre-service and in-service teacher education programmers as well as the school system. Teacher need to be convinced that his discipline contains an infinite number of possibilities for theoretical deepening and technical improvement. Teachers must have the knowledge and skills to use the new digital tools and resources to help all students achieve high thinking skill.

Integration of ICT in Teacher Education:

The traditional teaching- learning paradigm adopted the 'teacher centered approach' where the teacher serves as the repository and transmitter of knowledge to the student and learning is viewed as a linear process. The student reproduces knowledge rather than constructs knowledge and is a passive recipient of knowledge. According to Mann(1994,as referred by Bharati G Ganiger),"the use of new technologies in an educational setting has caused the theory of learning 'Constructivism' due to which, the students become empowered by gaining access to real data and work on authentic problem, often, the roles are reversed as teacher and student learn from one another".

In ICT education every factor becomes active, because giver and receiver come on single level and they communicate equally.



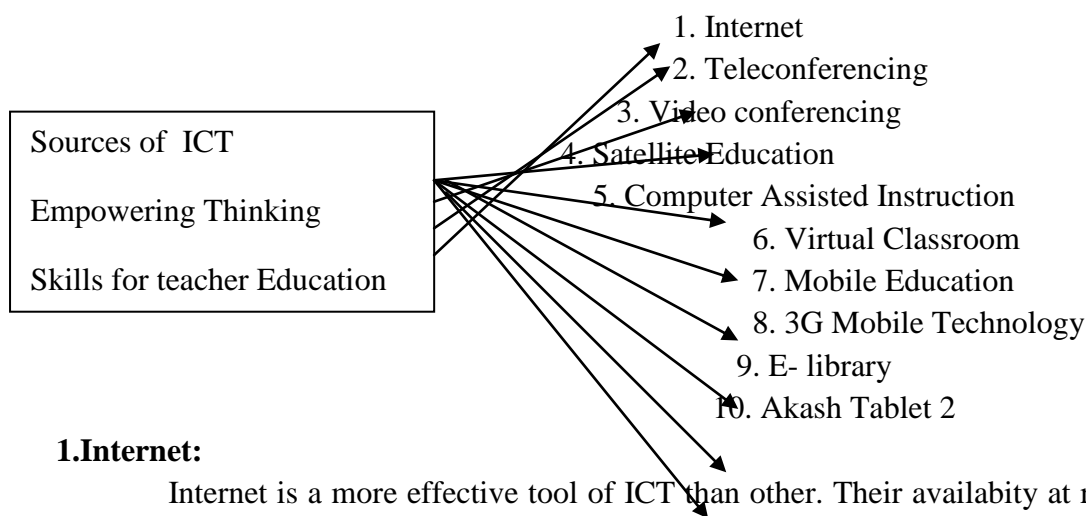
Role of ICT in Empowering Thinking Skills for teacher Education:

Teacher is main actors of school. They are not only knowledge transmitter, but also actors of change in school. Teacher must work in the framework of collective intelligence and prepare pupils for collective intelligence. This means that teacher themselves must act collectively, take part in collective missions, experience collective learning, collective intelligence, develop collaborative activities; Schools now need 'collectively intelligent teachers'. So teacher must be completely ICT trained. Teacher have to be 'blended teacher', mixing digital activities and non-digital ones, mixing presence and distance, dealing with time and space and all the possibilities offered by ICT in the management of time and space(distance and presence, synchronic and non-synchronic).ICT in education are not only new tools bringing

evolution and changes. They raise new fundamental paradigms, new fundamental concepts, which change profoundly our societies, which change knowledge and access to knowledge.

Sources of ICT in Empowering Thinking Skills for teacher Education:

Teachers should be preparing to integrate ICT tools into their teaching for creative teaching – learning process. In Foreign country, Education System focus and concentrate on constructivist teaching beliefs, teaching self-efficiency, Computer self efficiency and Computer attitude on their prospective ICT use. So we have to know, which sources are involved in ICT. ICT is a mixture of computer Technology and Communication technology.



1. Internet:

Internet is a more effective tool of ICT than other. Their availability at relatively low cost has do a social change particularly with education who use internet facility for maintain relationship, gaming emailing and updating knowledge purpose, unbounded by nearness spread wide spread availability of internet offer enormous opportunities for knowledge acquisition both in term of interaction with source of information and in term of collaboration. Use of Internet is the most important part of teacher education.

2. Teleconferencing:

Teleconferencing is the part of ICT, In Teacher Education many educationist presented their educational opinion and guidance doubt.

3. Video conferencing:

It is an indirectly face to face communication. In this system we can see other person expression and chat directly. It system so beneficial for teacher education because we can directly contact other country person. It is the supplementary system for informal education

4. Satellite Education:

In ICT based education involved Satellite Education. EDUSAT Satellite telecast the various educational program relate on education. EDUSAT is most important Satellite in teacher education.

5. Computer Assisted Instruction:

CAI program leads various teaching method effectively. CAI program involved Power Points Presentation, Graphic, Films, Video, Picture, LED. Its help for teacher and students for subject content knowledge.

6. Virtual Classroom:

Sources of ICT is so vast. Like Virtual classroom, with the help of various technological tools, we can create the environment of teaching without teacher. Students can learn and take guidance without classroom presently.

7. Mobile Education:

Today's Education system affected by new technology, in the new technology involved Mobile. Mobile is an easy tool to carry and it is a very beneficial for education. Because we can search information, communication source for peer group.

8. 3G Mobile Technology:

Today 3G Mobile is the best revaluation of technology. 3G Mobile is the Wireless technology, its transfer data so fast. If mobile connect to internet we can make video calling.

9. E- library:

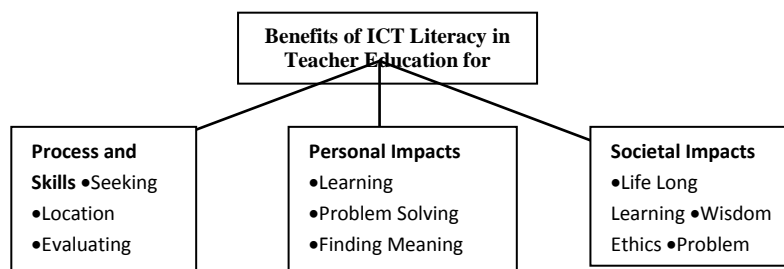
E-library is a part of ICT. In a service of E-library many book are included in this source, we can read one click of button like foreign books. Wikis Blogs is latest revaluation in this source.

10. Akash Tablet 2:

In the era of ICT, many technological equipment are available, like a. Akash Tablet 2. It's a large nu. Of function are there, ex. Wi-Fi network, Blogs, Camera. With the help of Akash Tablet teacher can followed the principles of co-operative and collaborative learning in teaching-learning process. If we have to sustainable development in quality of teacher education. We should follow the rapid change in ICT.

Benefits of ICT in Teacher Education for empowering thinking skill:

- Pedagogy is focused on teacher's instructional practices and knowledge of the curriculum and requires that they develop applications within their disciplines that make effective use of ICTs to support and extend teaching and learning
- Collaboration and Networking acknowledges the communicative potential of ICTs to extend learning beyond the classroom walls and the implications for teacher's development of new knowledge and thinking skills. Technology brings with it new rights and responsibilities, including equitable access to technology resources, care for individual health, and respect for intellectual property.
- Social issues aspect of ICT competence that have a wider impact on the social aspect of an individual, for example social networking among the teaching community.
- Technical Issues is an aspect of the lifelong Learning theme through which teachers update their thinking skills with hardware and software, as new generations of technology emerge.
- Role of ICT in bringing efficiency of delivery mechanism efficient delivery mechanisms are an important components of overall school management. ICTs can provide the efficiency of delivery mechanisms of educational service by supplementing conventional delivery mechanisms.



Conclusion:

Thus we can conclude that the ICT has to be fully implemented in the teaching and learning environment. Today education can be provided via satellite, this will save time, reduce unnecessary mobility and more. One of the major contributions of ICT is that it guides the education providers to start not with the content, but rather with learning activities and the achievement of learning objectives. ICT recognizes that learning happens when learners cooperate to solve problem in social and real life project-related situation. However, we should point out that the ICT has to be fully implemented in the teaching and learning environment. ICT technology can increase the range of subject taught. Integrating ever-changing ICT is a challenge to the academia as it throws open new corridors for both teachers and learners. Its management requires leadership, which is very accustomed to ICT as well as new processes of e-leadership. Planning, organizing, direction and coordinating of ICT for all sectors of education will be required. It will require a massive effort on the part of all educators. Derry and Lajoie (1993) argue that, "The appropriate role for a computer system is not that of a teacher/expert, but rather, that of a mind extension cognitive tool".

The effective and creative use of ICT, is key for developing the skills for learning, life and work needed by young people in the modern world schools must find new ways of thinking about how to use ICT. So that it is at the heart of teaching and learning to help changing the process of learning.

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