Scope of Innovations in the teaching learning process with the help of ICT

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Abstract
Quality of teaching definitely improves qualitative advancement in Education; quality depends on the innovative ideas of the teachers. Teachers should possess atleast awareness on the latest innovations, new trends and idea about educational reforms. This quality in the teacher will improve the dissemination of knowledge among the learners as it is also the need of the hour since this age is the age of technology. In the present scenario, where there is tremendous explosion of knowledge, the role of teacher is now redefined he just cannot play the role of the traditional teacher who is dependent on verbal and some basic teaching aids.

Keywords: Scope of Innovations, learning process, ICT

Introduction
Information and Communication Technology (ICT) is a universally accredited as an important catalyst in the teaching-learning process. Integration of ICT in the teaching learning process has enabled teacher training institutes to design the syllabus accordingly, pre service teachers are acquiring teaching skills along with the use of ICT in the training institutes itself.

The use of Information and Communication Technology has entered in every field which are in existence in the world; it is the most assimilated technology the mankind has ever witnessed, the use and scale is unprecedented. Countries who have adopted ICT at a very early stage have progressed immensely because transfer of communication became very convenient, affordable and within reach of every person. According to Thioune, 2003 “In a technology driven society, getting information quickly is important for both sender and receiver”.

ICT includes any mode of transmission of information that can store, retrieve, or manipulate it. ICT has opened new avenues like online learning, e-learning, virtual learning, virtual university, e-education, e-journal, etc. According to Ayo 2001 ICT is the use of computer systems and telecommunications equipment in information processing. Herselman and Hay describe ICT as technology that supports the communication and co-operation of ‘human beings and their organizations’ and the ‘creation and exchange of knowledge’.

Knowledge and technology has come to occupy a centre stage in national and international policy debates in this age of innovation and productivity. All the nations are now focussing on the ways to improve knowledge, generation, sharing, creation and flow of new technologies. It has been duly recognized that implementation and adoption of ICT in a country at all levels would certainly contribute and enhance its productivity, efficiency and growth. The qualitative advancement of education is possible only through improvement in the quality of instruction which in turn stipulates on the part of the teachers that they possess awareness of latest innovative trends and educational reforms in their professional repertoire, to disseminate knowledge and among learners in the present age of information. The role of the teachers is being redefined in the present scenario of knowledge explosion, ever evolving concepts of knowledge and technological advancements.

Importance of ICT in the field of education
One can safely say that ICT has replaced all the teaching aids which were used to clarify concepts, these teaching materials like charts, models, maps, were difficult to procure and quite expensive. ICT has provided a key ingredient that was lacking in all the previous tools that raised high expectations when introduced in the educational system right from blackboard to digital class room, the previous tools were presentation tools only. ICT cannot only present information with all the audio-visual expressive prospects of television programme, educational fairs but also can receive information from the user, and can adjust the presentation to the user needs, likings or desires. Likewise, in those schools where the Internet is available, the computer and ICT education is the gateway to information without boundaries, and the facilitator for teacher
and student. Today, when a major effort is being invested in the revolution of the classroom, moving away from fronton expository, educational demonstrations to surrounding where learners are dynamic innovators and maker of knowledge, ICT is the tool with the potential to help in reaching these goals. As technology comes to dominate and transform our lives more and more, as it becomes more pervasive, user friendly and inexpensive, schools cannot remain impervious to it. ICT has found an important place in schools across the world. According to Papert (1998), ICT will become an integral part of schools and eventually transform the entire process of schooling, just as it has transformed offices, banks, industry, research, transportation and other sectors.

This is an exciting and challenging time for teacher educators, the nature of teaching is changing. The nature of teaching is changing. In an effort to transform themselves into exemplary educator preparation institutions, many programmes are becoming more entrepreneurial, recognizing new opportunities and making changes required to respond to the needs of twenty first century learners.

In light of this, there is need for designing a comprehensive framework for defining and understanding computer competencies of teachers.

Integration of ICT into education system

The importance of ICT in the field of formal as well as non-formal education system is that it is Active learning, collaborative learning, creative learning, integrative learning and evaluative learning. ICT is a powerful tool for extending educational opportunities to those people and places which are isolated or backward or simply rural areas of our country. Where a large part of the population is deprived of education because of cultural, religious, social and economic reasons especially groups like minorities, tribals, girls, disabled persons or those elders who were deprived of education during their childhood because of some or the other reasons. ICT can fulfil the needs of all the deprived groups because of its following characteristics.

- **ICT is available 24X7**
  One of the most important feature of ICT is that it is available round the clock unlike other systems as far as internet access is available if the lessons are online or radio lessons, television broadcast, mobile phones, PCs because these are the devices which helps the learner to access educational lessons.

- **ICT can be accessed anywhere**
  Place has no meaning as far as accessing lessons through ICT is concerned, infact this is the most important feature of ICT, and this feature had made it extremely useful in a country like India where the population is huge and scattered throughout the country even in remote mountain regions, deserts, forest, islands, etc. which are physically isolated and not easily accessible to reach. Learners residing anywhere can access educational programmes and enhance their knowledge or complete their formal education.

- **Quality education through ICT**
  ICT has tremendous scope in providing quality education to the learners. ICT can enhance the quality of education in several ways, by increasing learner motivation and engagement by facilitating the acquisition of basic skills and by enhancing teacher training. ICT is also transformational tool which when used appropriately it promote the shift to a learner-centred environment.

- **Access to remote learning resources**
  ICT has made the use of printed material obsolete, mostly nowadays it is referred as a text book. Teachers and learners no longer have to rely solely on printed books and other materials. With the internet and websites a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people. This is particularly significant for many schools in developing countries, and even in developed countries, that have limited and outdated library resources.

- **ICT is a motivating factor for learners**
  The quality of learning materials available through ICT, the ease with which difficult concepts are presented, the attractiveness of presentation and other factors are really helpful in motivating the learners to learn. Videos, animations, text transition, moving images, colourfulness, dramatization, sound quality, etc. keeps the learner engaged without any distraction. The boredom and fatigue if often experienced by the students in a normal classroom, this boredom or fatigue is absent when he learns through various devices. The lessons are designed in such a manner that the whole lesson becomes a beautiful composition of sound, animation, videos, and attractive diagrams.

Besides the benefits of ICT mentioned above, there are also a risk of using ICT in education. ICT can create a particular gap between various learners, the learners who are at the advantage of accessing ICT and those who are not able to access ICT will be deprived of quality education and thus create a gap between various group of learners. In the same way the students who are well versed in handling devices and acquainted with technology and students who are not comfortable in handling the devices or are not acquainted with technology, in this situation a particular group will be at an advantage position, this may also create a feeling that those students who are economically sound have a distinct advantage. A gap between students may be created especially between the students who have and have not. Too much use of ICT may also create monotony; it may become a mere tool of transferring knowledge. Too much dependency on ICT may reduce the role of a teacher to mere instructor and his respect and dignity may be comprised.

Implementation of ICT in education system

The policy, planning, infrastructure, learning content and language, capacity building etc. may faces challenges in the integration of ICT in education system. ICT enhanced education requires clearly stated objectives, mobilization of resources and political commitment of concerned bodies. Experts have discussed issues such as analysis of current practice arrangements, identification of potential drives and by curriculum and pedagogy, infrastructure and capacity to be considered in the formulation of policy and planning in addition, it is wise to specify educational goals at the education and training levels as well as the different methods of ICT use that can facilitate in the pursuit of the integration of ICTs in
teaching and learning process reported to be effective in making teaching interesting and time saving than that of traditional teaching learning. Possible implications for such teachers for the integration of ICT into education to be summed up in the following way –

- If there is lack of access of ICT resources than provide ICT resources including hardware and software in the schools itself so that the teachers can take advantage of resources offered.
- If the teachers are hesitant to adopt new ways than train the teachers in new pedagogical approaches so that with open mind can learn new ways of teaching.
- If the teacher lacks in training than provide training courses in dealing with the new devices, modern technologies, and new pedagogical approaches.
- If the teachers lack in technical support than provide continued technical support and let the teachers solve the problems in their use of ICT.

Conclusion

The methods adopted by the teachers in teaching in the school classroom is highly rigid and conventional no matter India had made great progress in the field of Information Technology. It has to incorporate the latest technological methodologies in the teaching learning systems to replace the monotonous classroom teaching with vigorous instruction, in order to equip the learners with necessary skills and competencies.

ICT is universally accredited as an important catalyst in teaching-learning process. It brings more rich materials in the classrooms and libraries for teachers and students. Integration of ICT enabled educational programmes is the key to various educational reforms and social reconstruction. The mainstreaming of ICT utilization (particularly the computer and internet) in education systems at all levels is a must, for they benefit curriculum implementation and enhanced student learning. Therefore, education policy makers, educators and all concerned should evaluate and recognize the roles of ICT in education in order to work for the effective functioning of this technology in there education systems. ICT could offer a chance for radically re-engineering and saving the soul of the higher institution in the changing global educational context. There is a need to restructure the entire teaching-learning system using ICT into education, but there are several major barriers that are being encountered by the teachers. It’s necessary to overcome these barriers for the successful integration of ICT into education.

References