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CHALLENGES AND PROBLEMS TO USE ICT IN TEACHER EDUCATION

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Abstract

ICT has pervaded in every walk of life affecting the technological fields such as propelling satellites, dealing with organizations over those reality and additionally empowering person to person communication through social networking. At teacher education the implementation has not been found to be satisfactory as neither the curriculum planners, nor the universities has taken initiatives to prepare educators and teachers for the changed scenario wherein, the teacher has to use the Information and Communication Technology (ICT) in their day- to- day routine. Studying the challenges and problems to use ICT in classrooms may assists the educators to overcome the difficulties and challenges to become successful technology adopter in future. This paper is an effort to present an analysis of the pertinent literatures that intend to represent the perceived challenges and problems to use ICT in classrooms.

INTRODUCTION

ICT stands for information and communication technology. It is actually an extended synonym for information technology (IT). The convergences of computer, communication and content technologies, being known as ICT, have attracted attention of academia, business, government and communities to use it for innovative profitable proposition. The integration or use of ICT in teaching-learning process is very important in this era because it provides the students with the opportunities to learn to operate in the information age.

21st century is characterized with the emergence of knowledge based society wherein ICT plays a pivotal role. To support education across the curriculum new technologies have enough potential and it also provide opportunities for efficient teaching and learning process in ways that have not been possible before (Dawes, 2001). To improve quality in teaching and learning integration of technology is must with identification of possible obstacles in the way of implementation.

Information and communication technology has become an imperative part of most officialdomand business now-a-days (Zhang and Aikman, 2007). In 1980s computers were placed and many researchers advised that Information and Communication Technology will be an essential component of education for the next cohort too (Brown, Bransford and Cocking, 2000; Grimus,2000; Yelland, 2001). For improving teaching and learning in the classroom latest technology offers many means (Lefebvre, Deaudelin and Loiselle, 2006).

It's been claimed by various researcher that though teachers or instructors accept the importance of ICT in schools still challenges and difficulties continue to be encountered during its implementation (Balanskat, Blamire&Kefala, 2006).Recently, Khan (2012) concluded from his research on "Integration of ICT components in teacher educational institutions" opined that though India being an international leader in the production, development and use of ICTs but the truth is that the mass is still daunting. Our society needs trained educators at all stages. An infinite number of instructors at various levels are not trained except few and those who are trained possess only conventional teaching skills who lacks in latest ICT skills.There is a great need in the field of teacher education that the curriculum such should be framed that equips our future teachers with the

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mastery in using ICTs in general classrooms in higher institutes of learning.

The vision cited in National Policy on Information and Communication Technology (ICT) in school education document by MHRD, Govt of India, 2012 stated as "The ICT Policy in School Education aims at preparing youth to participate creatively in the establishment, sustenance and growth of a knowledge society leading to all round socio-economic development of the nation and global competitiveness".

The National Policy on Education 1986, as modified in 1992, stressed the need to employ educational technology to improve the quality of education. The policy statement led to two major centrally sponsored schemes, namely Educational Technology (ET) and Computer Literacy and Studies in Schools (CLASS) paving the way for a more comprehensive centrally sponsored scheme– Information and Communication Technology @ Schools in 2004. Educational technology also found a significant place in another scheme upgradation of science education. Similarly the later, the next major document on education in India, i.e. National Curriculum Framework, 2005 (NCF) also pointed to the significant role ICT can play in school education. Also, the use of ICT for quality improvement also figures in government of India's flagship programme on education, Sarva Shiksha Abhiyan (SSA), and in the norm of schooling recommended by the Central Advisory Board of Education(CABE), in its report on Universal Secondary Education, in 2005. With this backdrop, major paradigm shift is imperative in education characterised by imparting instructions, collaborative learning, and multidisciplinary problem-solving and promoting critical thinking skills.

In teaching learning environment studying the challenges and difficulties to the use of ICT is crucial because this knowledge could provide guidance for the ways to enhance technology integration (Schoepp, 2005) and encourages use of ICT, by identifying the fundamentals barriers and become successful technology adopters (Al- Alwani,2005). Yell and (2011)supported the fact that conventional educational environments do not seems to be suitable for preparing learners to function effectively or be productive in the workplace of today's society. By equipping the learners from the initial stage with the effective use of ICT will contribute in nation's development this is been also supported by Grimus (2000) who in his study highlighted that by teaching ICT skills in primary schools the pupils are prepared to face future developments based on proper understanding.

The ICT use policy in school education (2012) has set its mission in following words i.e. "devise, catalyse, support and sustain ICT and ICT enabled activities and processes in order to improve access, quality and efficiency in the school system sector". The policy had highlighted different challenges in the form of concerns of reach and access to education; equity in education; issues of quality; developing alternate modes of education; continuing education; teacher capacity building; & information systems for efficient management of the school system. This is only possible if our teacher education programme will be strengthened.

At teacher education the implementation has not been found to be satisfactory as neither the curriculum planners, nor the universities has taken initiatives to prepare educators and teachers for the changed scenario wherein, the teacher has to use the ICT in their day to day routine. The situation in India is lagging behind than the western world in many ways. Since the use of smart boards in classrooms is very limited in India. However, their use in western world is rampant.

Problems in Use of ICT in teacher education

The following problems are ailing the teacher education with respect to use of ICT in teacher education:

1. **Curriculum issue:** The new curriculum prescribed by the NCTE for teacher education for different programmes of teacher training lacks use of ICT in the curriculum. Only passing reference has been made to ICT as part of curriculum. Basic aspect are only taught like opening and shutdown of computers, Word, Power-Point and Excel in B.Ed. Similarly, no place has been given to ICT in syllabus in ETT curriculum (Elementary teacher education programme).
2. **Previous background of students:** Student background like socio-economic status of students, type of schooling etc act as problems

in the use of ICT in teacher education. Their level of competence is different with respect to use of ICT enabled devices. Sharma (2003) also highlighted that the most notable barrier to the use of ICT in education is the gap between the various section of the society.

3. **Less time on training:** Less time is devoted on the training of students on Basic skills of use of ICT for B.Ed students in their ICT related training. Moreover, in some institutions the infrastructure for training is missing in the teacher education institutions.
4. **Non adoption of current technologies:** The curriculum of teacher training programme is still not updated with respect to new Web. 3.0 technologies i.e. use of social networking technologies in education. The curriculum is orienting the student to using computers. It lacks the training in using these technologies for teaching on day to basis.
5. **Lack of experiential learning:** The process of learning through experience can be termed as experiential learning and is more specifically defined as "learning through reflection on doing". Generally in most of the institutions B.Ed students are given only theoretical knowledge rather than practical knowledge on using computers since the infrastructure is not available for training with teacher education institutions.

CHALLENGES IN IMPLEMENTATION

Apart from the problems in use the teacher education sector lacks the necessary modalities for incorporating and implementing the ICT in teaching learning situations. The challenges before the implementation if use of ICT are as following:

1. **Infrastructure:** In country like India where there are number of old school/college buildings, extensive retrofitting/ building of new infrastructure to ensure proper electrical wiring, heating/cooling and ventilation, and safety and security is a great challenge in the proper implementation of ICT. Altun (2007) also supported the fact that the infrastructure and physical resource is one of the most important factor which need to be taken into consideration when ICT is intended to be implemented into education programme.
2. **Fast changing technology-Configuration Issues:** It is great challenge in the implementation of ICT in classroom as every now and then new softwares are being launched by the companies so it becomes very difficult for the instructors to update their knowledge about new software like earlier window '7' was used now window '10' is mostly preferred. From the institution's' point of view also the massive upgradation of technology every year is a big challenge to implement.
3. **Lack of trained teachers:** In India there is lack of trained teachers as there are number of colleges which do not have proper facilities to train B.Ed students and this is because opening B.Ed institution is considered as low investment and high returns which prompts mushrooming of institution in job-starved country. The demand for ICT learning has been tremendous and the number of teachers who are trained to teach ICT cannot meet the demand. There are more students willing to be taught computing skills than there are teaches to transfer the skills. Number of researcher identified time limitations and difficulty in scheduling enough computer time for classes as a barrier to teachers use of ICT in their teaching (Al-Alwani,2005; Becta,2004; Beggs,2000; Schoepp,2005; Sicilia,2005).
4. **No regular appointment of computer teacher:** Most institutions appoint part-time computer teachers to train B.Ed students as per NCTE guidelines. These teachers appointed are not enough qualified or we can say are not eligible according to the prescribed norms. The qualifications are also prescribed as minimum in comparison to the immense requirement of training in ICT.
5. **Cost factor of training vis–a- vis fee structure:** The cost factor in teachertraining programme in comparison to programme of other discipline is very high. However the revenue generated in the fee from students is very less. Moreover being two year course an institution at any time has not more than 100 students per programme. this limit the profitability of teacher training institution.
6. **No specialised course:** No programme

specialization in ICT is being run in almost all universities. Neither there is any programme prescribed by regulatory body NCTE on ICT. For example there are programme with special education and this programme is being run in all parts of the country.

SOLUTIONS

From the above discussed in order to become 21st century super power. India has to implement the use of ICT in all walks of life. To be successful for knowledge economy in 21st century India need to be successful in producing citizen prepared for it. There shall be teacher adequately trained in using ICT for use in their daily classrooms. The present technologies available are in line with the new learning paradigm i.e. constructivism. The ICT in corporation shall be given maximum priority in teacher education institution.

The major barriers or challenges for integration of ICT in education were stated above. To produce quality teaching single component in itself is not sufficient. Hence the presence of all component increases the likelihood of excellent integration of ICT in learning environment. Following recommendation may help in better implementation of ICT.

- Educators can use social networking sites as a platform of communication between student-teacher and among teacher community for quality improvement.
- Government should provide funds and keep a regular check on proper utilization of fund.
- Societal contribution in terms of financial support and resource support to the educational institution.
- A system of lifelong professional development and support should be created, especially for B.Ed students and educators.
- Curriculum shall include topic training in Web 2.0, Web 3.0 technology

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