
ICT culture: Need of the hour in Teacher Education Programme

Aditi Pandey

Research Scholar, CASE, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat.

ABSTRACT:

The modern age is the age of information and technology which demands for digital and ICT literate people. With this perspective NCTE has also in 2014 in two year teacher education programme included it as an EPC course by named 'Critical Understanding of ICT'. The course explores use of ICTs to simplify record keeping, information management in education administration and gave it weightage of 50 marks, which make this subject as less bothered for the student teachers as compared to other subjects. Although it is the most powerful tool in the hand of a teacher as we are rapidly moving forward in this technological era. This paper reports to integrate ICT in journey of teacher education programme as an embedded form and to develop the ICT culture which means it should be reflected everywhere, in every activities, thinking, and lifestyle of the student teacher. The future younger generation is fully exposed to use technologies not only at classroom but at home and other places as well. It is very obvious that if the student teachers have to teach these techno-smart kids of today and future, who may be more advanced than we can even think of, for that there is a need to produce teacher who can handle these children and should have required techno-curiosity and competencies. It can only be possible by developing ICT culture in the teaching learning programme. It can be developed through development of environment to use more ICT not only in teaching learning but in all the activities and works of teacher education programme. It will help to produce ICT literate people who can not only use it in teaching learning but in all the spheres of their life. Thus this paper focuses on developing ICT culture by giving ICT due weightage in the curriculum and by demanding more involvement of student teachers which can enable them to use ICT in a meaningful ways and to respond. In addition it will briefly explore and suggest ways to develop ICT culture by giving enough encouragement to the student teacher to develop skills like info tech savvy and other need skills, by giving them full opportunities to use it either in the form of assignment, assessment, teaching learning or online feedback form etc. and it also emphasizes the need to create nexus between pedagogs and technocrtas for successful development of ICT culture.

KEYWORDS: *ICT culture, EPC course, Teacher Education and student teachers, Skills.*

INTRODUCTION

The modern age is the age of information and technology. Everyday new knowledge is evolving one or the other part of the world in all the fields' where practical knowledge of these technologies is as much important as theoretical knowledge. One should know how, where, why and when to use this is their day to day life. Keeping this in mind teacher education has also given an important place to ICT by including it under EPC (Enhancing Professional Capacity) course in teacher education curriculum under recommendation of two

year B.Ed. programme in 2015. Before this it was taught under educational technology as an optional subject in most of the universities that too was confined to the theoretical knowledge although its knowledge is more important in this 21st technological modern era. Thus the in depth knowledge of ICT should be ensured in teacher education programme. UNESCO (2002) has also suggested that for education to reap the full benefits of ICTs in learning, it is essential that pre-service and in-service teachers have basic ICT skills and competencies. It defined ICT as a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters. In 1998, UNESCO World Education report refers about student and teachers must have sufficient access to improve digital technology and the internet in their classroom, schools, and teacher educational institutions as ICT is one of the major contemporary factors shaping the global economy and producing rapid changes in society.

Current status of ICT in teacher education programme

Currently ICT is taught under EPC course with the title ‘critical understanding of ICT’ in first year of B.Ed. programme with weightage of 50 marks (NCTE 2014). It include both practical as well as theoretical aspect as this subject hold less weightage compared to other subjects which make it less bothered by the students and they give this subject less time and attention than other subjects. Thus it put question in actual and required development of ICT literacy in student teacher. Not only in India but the other parts of the world as well are facing challenges in ICT field thus it needs an urgent improvement. The Society for Information Technology and Teacher Education (SITE, 2002) has previously recommended three principles for the improvement of ICT and teacher education:

1. Technology should be infused into the entire teacher education programme;
2. Technology should be introduced in context; and
3. Students should experience innovative technology-supported learning environments in their teacher education programme.

Why ICT should be given much importance in teacher education programme?

ICT acts as the gateway to the world of information and helps teachers to be updated. It creates awareness of innovative trends in instructional methodologies, evaluation mechanism etc. for professional development. It can prove an immense help for the teachers thus a future teacher i.e. student teacher should have enough skill and knowledge to use this magical tool for the successful catering the needs of future generation tech smart children. It helps in lifelong learning by providing teachers access of all the knowledge through internet. ICT has fundamentally changes the way we live, learn, and work. It also helps in developing critical thinking. It enhances teaching learning process environment and helps to make teaching learning more creative and productive. It expands the horizon of the teachers as well as learners by providing them with abundance of knowledge and information available all over the world trough internet which eventually helps them to broaden the vision. It would also widen the knowledge base and make them competitive in the international arena. Thus ICTs have these and many other advantages for student teachers which if they would obtain and use it to the full efficiency, it can prove a magical tool for them in future and eventually can help in the quality improvement in education. Due to all these advantages the need of developing ICT culture is focused in this paper.

ICT culture

Culture is defined as the social behavior and norms found in human societies while ICT stands for Information and communication technologies and are defined, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony (United Nations Development Programme 2000). Thus we can conclude that ICT culture means developing the environment that encourage and support the more and more use of ICT. As we all know that Globalization and technological changes have created a new global economy which is powered by technology, fueled by information and driven by knowledge so if someone has to survive in this future world one must be very well acquaint with this so there is a dire need of not only to prepare student teacher who are having theoretical knowledge of ICT but they should also have enough confidence to use it in daily basis as integral part of life with the full competencies as they are fully exposed to these technologies. They should try to discover its various uses in other activities of schools as well than teaching learning. 'Students should learn about, learn with, and learn to incorporate technology into their own teaching' (SITE, 2002). NCFTE (2009) suggested that Teacher education needs to orient and sensitize the teacher to distinguish between critically useful, developmentally appropriate and the detrimental use of ICT. In a way, ICT can be imaginatively drawn upon for professional development and academic support of the pre-service and in-service teachers. To do so in teacher education programme, there is a need to develop a culture which can encourage student to use more and more ICT whether in the form of assignment, assessment, exploring educational programme of other parts of the world or online feedback form etc. and through other means whatever way is possible. Thus the area of ICT should be broadened from teaching learning to other aspects as well. It acts as an immense source of knowledge for the students and encourages them for critical thinking and increases their thirst of knowledge by developing curiosity in them. In the same line NCFTE (2009) has said that ICT including TV, radio, telephony and internet are useful as resources and providing access to ideas or for the wider dissemination of information. This would go a long way in breaking the isolation of teachers while promoting a 'culture' of seeking academic support and collaboration. Teacher educator should encourage students to use ICT more and more by giving them needed opportunity.

Significance of developing ICT culture

In the modern time the teaching learning has shifted from chalk-n-duster to digital learning. This shift also demands new knowledge and skills in the work force. ICTs have changed the nature of work and the types of skills needed in most fields and professions. UNESCO (2002) said about the ICT challenges that the challenge confronting our educational systems is how to transform the curriculum and teaching-learning process to provide students with the skills to function effectively in this dynamic, information-rich, and continuously changing environment. The awareness of ICT is necessary in the 21st century teacher educators since the conventional modes of teaching learning will not serve the purpose. Younger generation of the present time is much ahead in using internet and technology as compared to adults. The Internet and Mobile Association of India and market research firm IMRB International in December 2016 said that the number of Internet users in India is expected to reach 450-465 million by June, up 4-8% from 432 million in internet in India. It also revealed that both in

Urban and Rural India the younger generations are the most prolific users of internet with respect to adults. Thus considering this perspective and ever rapid increasing use of technology and internet ICT should be given more weightage and importance to meet the future need. Eventually the successful development of ICT culture will create a nexus between the pedagogs and technocrats.

Need to create a nexus between the pedagogs and technocrats

Technology is evolving so fast in the modern era that it poses a need to build a nexus between the pedagogs and the technocrats. For the teachers to use modern teaching learning methods is a must need to be inculcated and technocrats are exponent or advocate of technocracy, a member of a technically skilled who can greatly help the teacher to use the modern gadgets which may seem hard and complex to them for using it and resist them using these gadgets and technologies. If they will be provided enough support by these people then it can surely bring a wonderful change in teaching learning process.

Skills needed for the ICT culture

Neither the knowledge nor the information alone can help the student teachers but the skill to implement these both and make them into practice can take them in a long run. Thus the following skills are needed to develop ICT culture successfully:-

- **Info savvy skills** – Savvy means shrewdness and practical knowledge; the ability to make good judgments thus Info-Savvy Skills mean obtaining proficiency in searching information through offline or online. It follows five steps: *asking*- raising problem specific questions analytically, *accessing*- seeking related information from various media, *analysing* the information meticulously, such as, complete or incomplete, authentic or inauthentic, good or bad, fact or opinion, *applying* the analyzed information in the form of suitable formats to the initially identified problem and then *assessing* the entire process of asking questions, accessing information, information analysis, its application to the problem and assessment of the entire process spontaneously, cybernatically and naturally. Thus this skill is very important to be learnt by the student teacher so that they can select correct information in the most efficient way.
- **Tech-savvy skills** – Proficient in the use of technology, especially computers are referred to as tech savvy as in the modern time new technology and gadgets are invented so rapidly that can help teachers wonderfully. So many applications like MS Office (word, PowerPoint, Excel), Google drive, Office 365 (one note, sway) etc. and many more like this which can help teachers. Not only computer but they should very well acquaint with the use of other technologies as well. As still so many schools are out of reach of these technologies but yet the teachers can use mobile or any other personal gadgets like mobile or radio etc. to make the teaching learning more joyful and effective. Thus a teacher should have enough cleverness to use technologies in the above situation as well as the competence to use these new technologies with full confidence rather than possessing the tech phobia which resist them to use it and for any experimentation in teaching learning process.
- **Techno - pedagogical and content knowledge skill** –It is an emergent form of knowledge that goes beyond all three components (content, pedagogy, and

technology). TPACK is a rich understanding of how teaching and learning within a specific content area occur and change as a result of authentic, meaningful application of appropriate technologies. A student teacher should know the use and skill of assimilating these three into one to make their classroom more advance and up to date.

- **Neticiency skills** – A teacher should have enough proficiency to use internet so that they can explore teaching methods and content available all over the world. Thus, in teacher education this neticiency skill also should be developed.
- **Skill of collaborating through social media** – With the advent of internet world has become quite small as now everyone are can communicate and share knowledge using social and other media with each other. Now many social media are there like Facebook, Google+, Edmodo, Pintrest, You Tube etc. Thus the skill of collaborating with other state or country trough social or other media should be inculcated in student teacher so that they can get information about other innovative teaching learning practices going on as well.
- **Skill for using ICT for professional development** – Technology helps student teachers to be more professional as they allow them to have an increased access to a great variety of up-to-date resources to improve teaching/learning activities. Technologies help them present new concepts, theories or ideas and it helps to nurture student motivation, an important challenge, especially at the high school level.

CONCLUSION

Modern world is technological which influence every aspect of human life. It has become an integral part of our lives. Moreover the younger generation of today they are fully exposed to the digitalized knowledge and very well acquainted with how to use it. In this case the depth knowledge of use of ICT by the student teachers become more important now than ever before because they are the future teachers who are going to teach the new generation. ICT is one of the major contemporary factors shaping the global economy and producing rapid changes in society. Now a days use of ICT has become so important that its use is no more limited to only teaching learning process but equally used in the other fields as well like assessment, management, exploring. Thus we must try to approach for developing ICT culture using a humble but even critical view of modern technology by including it in our everyday life. In other words, we should scrutinize ICT not only from its pedagogical dimension, but from the philosophical and ethical bases entailed.

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