

Role Of ICT In The Professional Growth Of Teachers

Prof. Dr. Mala Sharma Dixit

Department of Education) Lingaya's Lalita Devi Institute of Management of Sciences mala.dixit@lldims.org.in

Abstract - Sing, et al. (2011) highlights the four important role of ICT in designing and supporting collaborative learning activities. First is ICT enable many-to-many interactions concurrently, which is essential for collaborative learning for instances blogs, virtual social network, and video conferencing etc. help in creating the synchronized workspace where students can share their ideas or react to others ideas thereby facilitating in breaking the dominance of initiation-respond evaluation (IRE) classroom-based discourse structure. Secondly, ICT also have referential capabilities which refer to the potential of externalizing the group thinking in the form of inscriptions for example online concept map, shared docs, etc. for further reflection and discussions. Thirdly, these digital inscriptions can be easily transferred, aggregated and modified within and across different ICT platforms thereby cutting across time and space and ensuring continuity among collaborators. And last, ICT promotes different patterns of participation for instance on social networking site one can participate in different roles like adviser, inquisitor, critic and many more. ICT can be used for training teacher in many ways as structured by Collis and Jung (2003) teacher training can take many forms. The framework has four extreme dimensions core technology, complementary technology, learning How to use ICT and learning via ICT. Teachers can be trained to learn HOW to use ICT or teachers can be trained VIA ICT. ICT can be used as a core or a complementary means to the teacher training process.

INTRODUCTION

The newly evolved information society is dynamical in nature, here the nature of knowledge changes with every passing second with inventions of new theories, processes and devices or discovery of unknown facts. In this ever evolving digitally driven society, it's not wise for the teachers to master a particular set of knowledge and teaching skills as what teaching tactics might work today may not work for tomorrow. So a teacher must always be learning so to remain at the upfront and provide best to their students in terms of both knowledge and practice which is at par with the changing context. For instance the old chalk and talk ways of teaching would not able to foster skills required by a 21st century learner, to prepare the learners for this digital century it's imperative for the teachers to adopt digital ways of teaching and learning. In order to prepare teachers to teach in dynamic context of present era, they must be given continuous dosage of professional development. Here the word "continuous" in context of professional development

clearly signifies that it's a never ending process and is not limited to attending regular refresher courses or in-service programmes as a job requirement.

In the words of Day (1994), continuous professional development consists of all the knowledge and practices acquired by teachers via individual efforts or by peer learning either in formal or informal settings; "Professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school, which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues throughout each phase of their teaching lives." (Day, 1994, p.4)

British Council (2011) also defined Continuous Professional Development as a planned, continuous and lifelong process where teacher develop their personal and professional qualities and improve their knowledge and skills, by collaborative, reflective and constructive practices leading to their empowerment.

MODELS OF CONTINUOUS PROFESSIONAL DEVELOPMENT

Kennedy (2005) suggested nine models of Continuous Professional Development. These nine models gradually move from traditional way of training teachers towards a more transformational approach.

The nine models are as follows:

1. Training: trainer centered, aimed at instructing the teachers what to be taught.
2. Award Bearing: that bought the distressing discourse of the academics to the for front
3. Deficit: aimed at addressing the shortcomings of teacher
4. Cascade: providing in-service to the teachers through a set of master trainers.
5. Standards Based: one kind of training to all the teachers to impart “assumed” effective teaching.
6. Coaching / Mentoring: either in the form of peers, school leaders or teacher educators to help teachers in improving their teaching
7. Community of Practice: collaborative efforts and support of community help teachers in expanding their knowledge
8. Action Research: where teachers learn through classroom experimentations and self-reflections.
9. Transformative: this model is the integration of previous eight models which focus on self-directed learning.

The first four of these models are traditional based on transmission methods, which gave little autonomy to the teachers to design their own learning. These models usually follow top-down approach. The later 3 are transformational that gives professional autonomy to the teachers to determine their own learning pathways. They follow bottom approach. Hence as we move these transformational models are more demanding as they require a continuous support of learning resources and opportunities which they can tailor as per their needs.

PROFESSIONAL DEVELOPMENT IN INDIAN CONTEXT

In Indian context usually the professional development of the teachers is done via short term and intermittent in-service training programmes (INSET) planned and implemented by the IASEs, DIETs, BRSs and CRCs extrinsically with little or no scope for interventions by the teachers in their developments because of this the alienated training sessions fails to bring out any substantial development in them as a professionals. High-powered commission on Teacher Education (2012) also made this observation that training sessions are planned via top-down approach rather than need based with no clear criteria for selecting the teachers or resource person for a particular training programme. Along with this the cascade mode of training further dilute the proposed agenda of training which further slowdown the professional learning of teachers in remote areas. Also there is no common platform where follow up of the training session could be done so as to address the individual concerns of the teachers that arise while practicing what was learnt at training. Report of Joint Review Mission (2016) also stressed that there is no linkage or network that could connect all the personnel (teachers, trainers, teacher educators, administrators and policy makers) could connect and engage them in professional development. All these pit falls in the training of Indian teachers couldn't impart it a continuous character.

ROLE OF ICT TO MAKE PROFESSIONAL DEVELOPMENT CONTINUOUS

Sing, et al. (2011) highlights the four important role of ICT in designing and supporting collaborative learning activities. First is ICT enable many-to-many interactions concurrently, which is essential for collaborative learning for instances blogs, virtual social network, and video conferencing etc. help in creating the synchronized workspace where students can share their ideas or react to others ideas thereby facilitating in breaking the dominance of initiation-respond evaluation (IRE) classroom-based discourse structure. Secondly, ICT also have referential capabilities which refer to the potential of externalizing the group thinking in the form of inscriptions for example online concept map, shared docs, etc. for further reflection and discussions. Thirdly, these digital inscriptions can be easily transferred, aggregated and modified within and across different ICT platforms thereby cutting across time and space and ensuring continuity among collaborators. And last, ICT promotes different patterns of participation for instance on social networking site one can participate in different roles like adviser, inquisitor, critic and many more.

ICT can be used for training teacher in many ways as structured by Collis and Jung (2003) teacher training can take many forms. The framework has four extreme dimensions core technology, complementary technology, learning How to use ICT and learning via ICT. Teachers can be trained to learn HOW to use ICT or teachers can be trained VIA ICT. ICT can be used as a core or a complementary means to the teacher training process.

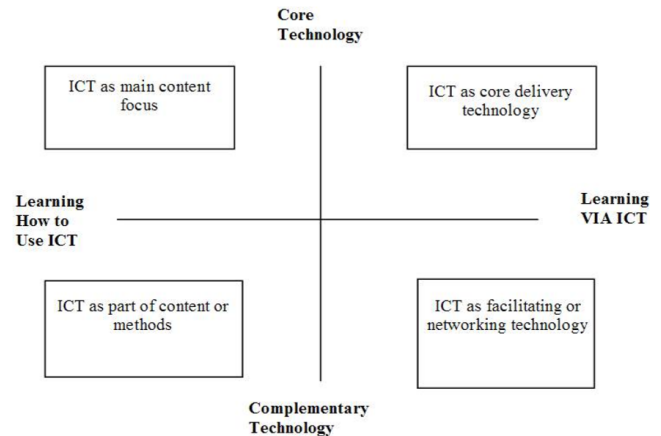


Figure 1. Categories for ICT in teacher training (adapted from Collis & Jung, 2003, p.176)

The intersection of these dimensions gave for ways/forms/ approaches of integrating ICT

- ICT use as main content focus of teacher training: where ICT is a subject in teacher education courses as our new two year B.Ed. syllabus.
- ICT use as part of teaching methods: integrates ICT into teacher training to facilitate some aspects of training. For example North Central Technology in Education Consortium has developed videotapes and CD-ROM that contains the videos of teacher teaching with technology which were shown to f K-12 teachers and school administrators for reference during training. Similarly UNICEF's Teachers Talking about Learning is another initiative that uses internet and television to provide teacher training materials and useful links and promotes discussions among teachers (Jung, 2003).
- ICT as core technology for delivering teacher training: where ICT is used as the major way of providing the learning experience of teacher training. The best example for this is online professional development courses or MOOCs. The focus of this approach is not not necessarily ICT skill development but rather use of ICT for training. Some of the online training initiatives are Virtual High School in the USA provides the Internet-based ICT

teacher training. The VHS has developed graduate-level online professional development courses for teachers that train them to create and teach online courses. In Morocco and Namibia, the Computer Assisted Teacher Training project has started to develop computer-assisted teacher training courses and construct communications network to facilitate interaction among teacher trainees, teacher trainers, and inspectors. Similarly, the Connectivity for Educator Development project in Uganda has been designed to improve professional development for primary school teachers, with a focus on multimedia-assisted teacher training and digital library resources.

- ICT used to facilitate professional development and networking: in this ICT is used a complementary technology to support the teachers' online or face to face professional development particularly using Internet and Web-based communication technologies. Many countries have developed a website or websites to provide online resources for teachers and facilitate teachers' networking based on the assumption that professional development should be an integral part of daily practice for all teachers and the use of the Internet would enhance continuous professional development activities of teachers, connecting teachers to larger teaching communities and allowing for interaction with expert groups. For example UK Virtual Teacher centers, Singapore OPAL, Korea's EduNet and many more.

Out of four approaches the last two approaches are used for continuing the professional development of teachers either by designing large number of online professional training programmes amongst which teachers can choose as per requirements and pace or

ICT can support the teacher training by building resource portals or learning networks.

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