L3 through ICT CFT version 3: Emphasize on Teacher Professional Learning

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Abstract

The wave of digitalization has opened the portals of digital edification in higher education institutions for promoting and enhancing L3 (Lifelong learning). The future generation will be flooded with digital natives and the process of teaching and learning will be certainly digitalized and blended with ICT (Integrated Communication and Technology) tools and techniques to accomplish the contemporary needs of the learners. UNESCO has designed ICT CFT (Competency Framework for Teachers) in 2008 and 2011 for elevating the digital skills of the teachers to nexus technology and education and recently in 2018 it has launched ICT CFT version 3 with the incorporation of the Agenda 2030 for Sustainable Development. In the view of educational experts, ICT plays the crucial roles in imparting quality education which will inturn create the channels of lifelong learning. The ICT CFT version 3 focuses on six aspects at three levels and comprises of eighteen competencies. The centre of attention of this research work is the sixth aspect; Teacher Professional Learning (TPL) at three levels namely knowledge acquisition, knowledge deepening and knowledge creation. It is the need of the hour for the teachers to get embedded with the competencies of ICT for a paradigm shift from conventional mode to digital. This paper presents an elaborate description of TPL which encompasses three predominant competencies such as Digital literacy, Networking and Teacher as an Innovator at three levels respectively. Strategies that can be adopted for teachers to acquire the competencies pertaining to TPL are outlined in broader manner. The intensive study on the competencies of TPL strongly highlights that the enrichment of the teacher's pedagogical use of ICT will embark on lifelong learning to great extent and the knowledge societies can be produced by the teachers with the acquirement of digital skills and mastery over ICT.

Keywords: Lifelong learning, Integrated Communication and Technology, Competency Framework for Teachers, Teacher Professional Learning, Digital skills.

1. Introduction

UNESCO is keen on upgrading the quality of education in several dimensions through the formulation of ICT CFT since 2008. The essence of this framework is to incorporate ICT with education to create knowledge rich society for promoting the sustainability of the nation's economic growth. Developed nations have extended their arms for such hybrid process of teaching and learning and it has become the common practice at all educational institutions. (The hybrid process here refers to the ICT integrated with teaching and learning). On other hand, developing nations resist to such hybrid process and it has ended in partial implementation with the lack of integrity. The conscious analysis in this regard will label poor infrastructure, deficit of finance, technology ignorant teachers, devoid of awareness of ICT tools and implementation hurdles as the contributing factors for short of holisticity. But on after repeated profound analysis, it is highly vivid that if the teacher is dearth of ICT skills then implementation of hybrid process inspite of well equipped educational setting will be a nightmare. The hectic task of empowering the learners with ICT tools is levied on the teachers, who have to gain momentum with the trends of ICT to withstand and lead the student community to the world of digitalization through the doors of technology based teaching.

UNESCO's ICT CFT formulated in 2008 established ICT competency standards for teachers focusing on the dimensions of policy and vision, curriculum and assessment, pedagogy, ICT, organization and administration, teacher professional development through the approaches of technology literacy, knowledge deepening and knowledge creation. The intention of framing such framework is to assist the ministries to assess the current educational policies in the context of promoting the goals of social and economic development. In continuation with

such standards UNESCO has framed ICT CFT in 2011 with the dimensions as understanding ICT in education, curriculum and assessment, pedagogy, ICT, organization and administration, teacher professional learning through the same approaches as 2008. The recent version of ICT CFT in 2018 focuses on the dimensions of understanding

ICT in education, curriculum and assessment, pedagogy, application of digital skills, organization and administration, teacher professional learning through the approaches of knowledge acquisition, knowledge deepening and knowledge creation. In all the three versions of ICT CFT, continuous learning is given significance and will it takes place with the coordinated efforts of the teachers and ICT tools.

The entire interrelated processes of teaching and learning are shouldered upon teachers as they play a centric role at all phases of such continuous process of learning. In the traditional days of education, teacher was an academic dictator; teacher was the mirror of the book in the outlook of the students, but as modernization commenced to take upper hand technology crept into the field of education and began to provide supplementary aids to teaching and learning. As this had warm welcoming in course of time technology has now started to attain the state of supremacy in the name of ICT in the educational institutions. This situation has now created the need of technology adaptation and upgradation for the teaching community to meet the current learning demands of the learners. The association of ICT with teaching will impart new patterns of learning and it will pave way for lifelong learning.

'Teachers are not born, they are made'. This famous quote vividly portrays one reality that a person becomes a teacher by enhancing one's professionalism. Presently the development of teaching competency takes place in an efficient manner by getting accustomed to the growing trends of technology. Digital mode of teaching connected with networks of educators and embedded with innovative ideas has now become the definition of a facilitator, the new terminology of teacher in current educational system. This paper intends to present about Teacher professional development in a comprehensive manner with the inclusion of three core technical terms such as Digital literacy, Networking and Teacher as an Innovator.

2. Teacher Professional Development

UNESCO in its ICT CFT has presented a brief description of TPL with the incorporation of new ideas in all its three versions. The aspect TPL has modifications in each version, which reflects the need of such revisions to fit into the dynamic system of education. The predominant insistence on TPL is the absorption of ICT by the teachers to act as facilitators for making a paradigm shift in the teaching method. Practicing novel pedagogies, planning interesting activities, holistic engagement of the students, self empowerment in accordance to contemporary demands, indulging in creating vibrant classrooms, developing the skills and abilities of the students with the assistance of the technology are the dimensions in which a teacher requires training and development.

The focus on TPL in 2008 ICT CFT encircled in making teachers to be instigated with technology literacy which is the technology means of communication. It is expected of the teachers to be aware of employing the techniques of ICT precisely. Teachers must acquire training to serve as guide in collaborative project based tasks. New knowledge must be created by teachers to facilitate lifelong learning. The spot light on TPL in the ICT CFT framed in 2011 are Digital literacy, Manage and Guide, Teacher as Model learner. The acquisition of digital literacy assists in gathering web resources for teaching. Task based learning can be assigned to the students in web portals and the teacher can act as guide and manage the learning activity of this kind. Teacher is an everlasting learner and the teacher is expected to set an example for the colleagues and the students. The right administration of the ICT in the teaching process is very essential to bridge the gap between the theoretical aspects and its related practical implications. In the latest version of ICT CFT framed in 2018, the aspect of TPL is encircled around Digital literacy, networking and Teacher as innovator. Digital literacy gets retained in the current version too; networking refers to creating professional networks with ICT tools. Teachers have to develop themselves into knowledge banks with the replenishment of current technology and innovative ideas of teaching.

The recent version of ICT CFT in 2018 is highly interesting as it creates the channels of ICT to play a vital role with the teachers for enriching the student community to acquire the competency of lifelong learning. The amalgamation of teachers and ICT will greatly generate high impact on L3. This paper strongly emphasizes that the occurrence of L3 in students has greater correlation with the teacher's rate of integration of ICT in their teaching. This paper aims in presenting the various strategies that can be practiced by the teachers to attain professional development at all the three levels of knowledge acquisition, knowledge deepening and knowledge creating by acquiring digital literacy, building networks and empowering as innovators respectively.

3. Strategies to attain the competencies of TPL

This section proposes various strategies to be followed by the teachers for their professional development at all three levels of knowledge acquisition, knowledge deepening and knowledge creating along with the impacts on L3.

3.1 Digital literacy

A teacher is expected to be an embodiment of profound knowledge on subject matters, traditionally a teacher was considered to be a portable book by the students and documentation was an unwritten task. But now the slogan 'SAY NO TO PAPERS' is going viral in this techie world. All takes place either in one TOUCH or in a single SWIPE and the present generation has got well accustomed to this culture of communication. The system of education has now drifted to student centric and now it is the responsibility of the teacher to fulfill the demands of the diverse learning community with the single channel of teaching mode. This is indeed a challenging task for the teaching group. To withstand such critical situations, the teacher should acquire the literacy on digital gadgets and must be self interested in knowing the new trends of making their teaching to reach.

The learners in the classroom are a mixture of auditory, visual and kinesthetic nature, practically the students can't be divided into separate groups based on this criterion alone as there can be radical change in this pattern during the course of time, to overcome such kind of hurdles, the teachers are encouraged to acquire the digital skills. The strategies to get the hands on digital techniques are as follows

- The teachers must be self motivated and delightful in switching to newer technology.
- The teaching community must be filled with cooperativeness and each one must teach their colleagues the recent pedagogies related to ICT.
- Professional enhancement programmes have to be attended biannually or annually to be familiar with the upgradation.
- Digital learning sources can be tapped and documentation can be saved rather than filing.
- Reporting and other means of communication can be made electronically.
- Audio visual aids can be employed to reduce the monotonousness in the classroom.
- Teaching can be made interesting with videos and other digital activities.

These proposed strategies can be implemented to make the teachers gain proficiency in digital literacy. Several studies at different levels have to be undertaken considering many dimensions such as the background of the institution, teachers and learners, digital competencies of the teachers and learners, institutional facilities and so on. But to us, irrespective of the mentioned limitations, these strategies are deep-seated and it can be practiced by institutions of all backgrounds with minimal funds, so that they can step into the digital world of education without any hardships and promote lifelong learning.

As everything goes with the techie touch, lifelong learning is also finding its place in the technology race.ICT integrated teaching facilitates lifelong learning as it encompasses the facets of L3. Digital literacy of teachers will get transformed into learners and there will be an exchange of learning in digital mode at any pace which accelerates L3 and will continue to do so.

3.2 Networking

Technology keeps us connected and this principle has to be applied in the system of education to make the learners and teachers in connective mode for sharing of resources to promote lifelong learning. The teacher with the acquisition of digital literacy should take initiatives to deepen the knowledge on it. Social networks are now bended to share academic programmes and activities. Information has to be propagated and the academicians have to form various networks and stay tuned to it. The expert, educationalist, researchers must form integrated and independent forums to address many aspects related to curriculum framework and structure of syllabi. The teachers have to build networks of their own to receive the expertise from global, national and regional levels for agglomerating the same for a good cause of the learners.

The teachers can enroll in online courses and enhance their knowledge on their related subject areas and on other areas of their interest. They can exhibit their vibrant participation through webinars, online portals and blogs. External expertise can be received through networks of experts at worldwide. The opening of completing accredited courses through online are relatively high. The networks can be utilized to access and analyze different opportunities of learning with active interaction and discussions on highlighting aspects of education. The online platforms can be used diligently used to empower and reform the educational system to the needs of society and nation as a whole. It is the teacher to decide and follow a pattern of networking the student community with the academics to nourish lifelong learning. Few strategies of networking by the teachers are discussed as follows,

- The teacher can establish personal networking system to communicate with the learners.
- The learning resources can be shared instantaneously to the students by avoiding the circulation of old written materials.
- Electronic means of submission of assignments can be implemented with appropriate safety measures to avoid any type of digital fallacy.
- Administer of GOOGLE CLASSROOM to monitor the teaching learning activities.
- Professional development will take place by imbibing the expertise of learned community.
- Social networks can be made active with academic content.
- Teacher – learner relationship has to be made flexible by the institution for making digital education flag high.
- Automation system has to be a regular practice.
- Institutional networks have to be encouraged for the wide share of expertise.

The networking by the teachers is a reflection of the acquisition of digital literacy. The profoundness in networking depends on the teacher's affiliation and interest in ICT integrated teaching. Lifelong learning can ride only on sound academic network.

3.3 Teacher as an Innovator

Innovation ignites creation. The word 'teacher' takes new forms as instructor, trainer and now it is the facilitator, who facilitates learning with the innovative ideas. The teacher must not just use the E-resources, which is downloaded by many users; rather the teacher must be efficient in creating learning resources with the support of existing resources. Teachers in the name of ICT integrated teaching get drowned by downloading. Copy – Paste work has to be suspended. The teaching plans have to be designed more creatively to gain the attention and retention of student's interest towards learning. Teachers are expected to be innovators and they are supposed to maintain high levels of happiness quotient of students in learning.

The teacher must be ready to be a lifelong learner; be a chameleon to the technological updates; prudent to create worksheets; frame ICT integrated curriculum. The teacher must also never fail to remember that interpersonal relationship with students unlocks the implementation of innovations. In this subsection many strategies of making teacher as an innovator are presented as follows.

- The institution can devise software for total database management and gets everything automated to facilitate the upload of learning resources and E-content in the websites of the institution for making learning to take place at student's tempo. This inturn will tune the teachers to be creative with the stoppage of duplication.
- Organization of academic meet to share the innovative ideas on different streamlines.
- The teachers can undergo online professional courses on varied pedagogies.
- Consortium on Innovation can be organized at institutional level to scatter light on making creative teachers.
- The classrooms have to be made smart and technology inbuilt for the execution of innovations.
- Project based task has to be assigned to students to kindle the creativity of the learners.
- The skills of teaching have to be changed into points of captivation of learner's attention.
- Original learning resources have to be drafted and posted in OER.
- Lesson plans with the respective teaching aids can be framed earlier so as to reap the anticipated fruits.
- Continuous evaluation on professionalism must occur to foster innovation.
- The best practices at each institution can be shared to make the feasible one as universal.
- The institution must render its fullest support for the sustenance of the innovation in the minds of the teachers.

The time for the search of innovative teacher is extremely long and it is hectic to accomplish this great demand in the educational market. Education has now become a commodity, where the employers hunt for the best quality and the remaining gets the label, 'Unfit'. Education and Employment has become two extreme poles and who will bridge the gap?. It is the innovative teachers who can be a connective. The educational system is filled with plethora of pedagogies, updated syllabus and extravagant curriculum but still both Education and Employability are widely apart. This scenario has to be changed. Every institution is expected to deliver suitable products to the job market and this can be made possible only with the innovative teacher as the machinery. It is in the hands of the innovative teacher to make the learning takes place lifelong which is achievable through ICT integrated teaching.

4. **Illustrations**

It is the need of the hour for the teachers to be digitally sound. The Indian Nation has launched a campaign called DIGITAL INDIA in 2015 for expounding the necessity of Digital literacy in almost all the public sectors. Now the concern is reflected towards the field of education. The Ministry of human Resource is taking several initiatives for building and developing the Digital skills of the teachers and the students at school level by exposing them to many induction and orientation programmes. The teachers and students of higher education are provided with the opportunities of online platforms such as SWAYAM, NPTEL to accomplish online courses in diverse areas prepared by the professional and proficient professors of Indian Institutes of technology. These endeavours will certainly add strength to the efforts of making conventional teacher to digital teacher embedded with the skills and tactics of digitalization.

5. Methods of Implementation at National Level

Each nation of the universe must develop a comprehensive plan in implementing the strategies for enhancing the Teacher's professional Digital competency. Digital competence is the ability to keep abreast with the rapid changes in the area of ICT. It comprises the related knowledge and skills to exploit ICT efficiently to communicate and to collaborate through networks. In 2013, the European Commission published a Digital Competence Framework which comprised the significant notion of Digital literacy.

The challenges of the teachers in acquiring Digital literacy, hurdles in networking and innovation have to identified by conducting research study. Based on the inferences of the study the Digital Skills developing programmes can be organized in region wise at three different phases for school and college teachers. The first phase of the programme will focus on the strategies of acquiring Digital Literacy. The second phase of the programme will throw light on the strategies of Networking. The Third phase of the programme will spotlight on Teacher as an Innovator.

After undergoing the three phases of the programme, the teacher will be ready to be a lifelong learner for acquiring the digital competency and will become a chameleon to the technological updates; prudent to create

worksheets; frame ICT integrated curriculum.. The teacher must also never fail to remember that interpersonal relationship with students unlocks the implementation of innovations. The feedback of the three phases will be conducted and additional training programmes may be conducted based on the demands of the trainees and a follow – up will take place to evaluate the impacts of the programme in the teaching style of the trainees.

Conclusion

This paper has presented a brief picture of three versions of ICT CFT framed by UNESCO in 2008, 2011 and 2018 and has taken the components of version 3 into consideration. Teacher professional development is given much emphasizing in the levels of knowledge acquisition, knowledge deepening and knowledge creation through Digital literacy, Networking and Teacher as an Innovator. This article has suggested many strategies to be practiced by the teachers with the support of the institution to acquire the skills and knowledge of digital gadgets. This research work mainly insists that lifelong learning is the key indicator of ICT CFT with special reference to Teacher Professional Development. The teachers embedded with ICT skills can make the learning takes place persistently. This combined work strongly focuses on the stratagems to be practiced by the digital immigrant generation to promote lifelong learning amidst digital native generation which demands the association of the teachers with ICT.

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Note:

The references are limited only to the original frame work of ICT CFT by UNESCO in the year 2008, 2011, 2018 and so as the content of the article.