Information and Communication Technology in Teacher Education

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Abstract

Information & Communication Technology is an important catalyst for social transformation. It is changing the traditional role of the teacher and the students. Present day student is better informed than the teacher. ICT enabled education bridges the gap between these. The use of ICT effectively enhances learning where traditional models have failed. ICT can support effective professional development of the teachers.

Keywords: Information, Communication, Technology, Teacher Education.

Introduction:

Information & Communication Technology, ICT in short, is undoubtedly is an important catalyst for social transformation and national progress for any country irrespective of it being developed or developing country. The disparities in the levels of ICT readiness and its use could translate into disparities in level of productivities. This would influence a country's rate of economic growth. Therefore understanding and leveraging ICT is critical for the countries striving for continued social and economic progress.

The Problem

The pace of technological revolution and emergence of a knowledge society is changing the traditional role of the teacher and the students. In our country, being in the conventional format of education, the teacher used to be the source of knowledge for the students. The students used to explore new knowledge with the cooperation of the teachers.

In quenching the thirst of the students for modern knowledge, the teachers used face constant problem of not being updated with the wide spreading fruits of technology and because of this lack of technological developments and as their knowledge remained to text books, they were handicap in supplementing latest developments in the knowledge that the students require.

The Present day situation

Now-a-days, having enough online resources, in many cases, the student is more well informed than the teacher. Furthermore, there is likely to be confusion in the teachers mind about his role in
the use of these technologies. Thus by the teachers find themselves in a situation where they are no
longer the principle source for delivery of information.

In this era of knowledge revolution, the primary source of knowledge has shifted from the
conventional source to a several sources including the digital source. In short, we can say that the
knowledge source is decentralized, which is showing an overall impact on the development of
learning abilities among the children. Hence there arises a need to facilitate training on ICTs for
teacher community. But the Information Technology sector in India is not that encouraging. Our
country appears in the list of the countries with lowest IT penetrations. In the field of education,
the usage of ICT is near the lowest.

Education plays an instrumental role in ensuring the future generation well informed and
competent. But, unfortunately the schooling system of our country has limited resources for buying
books, stationery, furniture and other classroom materials. The traditionally trained teachers
generally lack adequate technical qualification and training to engage their students in learning
with modern tools. The conventional lesson plans that are being followed in our education system
are most often outdated. This is jeopardizing the availability of quality education.

The Solution

ICT enabled education enables us to combat this problem. The ICT enabled programs that
include computer usage and Internet training facilitate the use of essential technology. Acquiring
fundamental ICT skills by the teachers and the taught helps knowledge sharing, thus by
multiplying the educational opportunities. But the tragedy in our conventional system is that
majority of teachers are not willing to get imparted with the new technologies to themselves first
and subsequently disseminating the same to their students.

The use of ICT effectively enhances learning where traditional models have failed. While
these technologies offer advantages, they also pose challenges. In order to implement ICT-driven
education programs, the teachers must first understand and be comfortable with the technologies.
They must be given opportunity to acquire the knowledge of utilizing the new knowledge. This
can begin only by promoting computer-training programs for teachers. To motivate the teachers to
have ICT driven programs, increments, monetary incentives can be offered.

The most obvious technique for professional development for teachers is to provide courses
in basic ICTs knowledge and skills. It is necessary for teachers to become skilled in operating the
new technologies and in exploiting them effectively as educational tools. Teachers must master the
use of information – skills of research, critical analysis, linking diverse types and sources of
information, reformulating retrieved data – if they are to teach their pupils to develop these same
skills. There needs to be more emphasis placed on training in pedagogy, as opposed to the current
trend in many education systems where the major focus is on specialized knowledge in specific
curricular subjects. Teachers must be adequately equipped with more didactic competencies so as
to assume their new role as experts in the learning process.

The Policies

Since 1960s the Government of India recognized the need of imparting ICT exposure to the
teachers and to the whole teaching system. Kothari Commission that was constituted in 1964
stressed upon the professional preparation of teachers. It recommended the introduction of
integrated courses of general and professional education with greater scope for self study. The
Chattopadhyaya Committee, initiated in 1983 envisioned the new teacher as who communicates to
pupils. It recommended a four-year integrated course for the secondary as well as the elementary teacher.

The National Policy of Education, 1986 and 1992 recognized that teachers should have the freedom to innovate, to devise appropriate methods of communication and activities relevant to the needs of and capabilities of and the concerns of the community. The policy further stated that teacher education is a continuous process, and its pre-service and in-service components are inseparable. As the first step, the system of teacher education should be overhauled.

The Ramamurti Committee 1990 in its review of the National Policy of Education, 1986 observed that an internship model for teacher training should be adopted because the internship model is firmly based on the primary value of actual field experience in a realistic situation, on the development of teaching skills by practice over a period of time. The Yashpal Committee 1993’s Report that the emphasis in these programs should be on enabling the trainees to acquire the ability for self learning and independent thinking. The National Curriculum Framework (NCF), 2005 presented a fresh vision and a new discourse on key contemporary educational issues.

The critical link between the curriculum and the teaching-learning environment is the teacher. The professional teacher education curriculum emerges from the national education system that continues to view teachers as dispensers of information and pupil as passive recipients of the education in classrooms. The professionalized teachers facilitate improvement of school education. Thus by they function as a bridge between elementary and higher education.

The need of the hour

The most useful technique for the professional development of teachers is to provide them courses in basic ICTs knowledge and skills. This is mandatory for teachers to become skilled in utilizing the new technologies and in exploiting them effectively as educational tools. Teachers must master the use of information – skills of research, critical analysis, linking diverse types and sources of information, reformulating retrieved data – if they are to teach their pupils to develop these same skills. These needs to be more emphasis placed on training in pedagogy, as opposed to the current trend in many education systems where the major focus is on specialized knowledge in specific curricular subjects. Teachers must be adequately equipped with more didactic competencies so as to assume their new role as experts in the learning process.

Conclusion

Information & Communication Technology can support effective professional development of the teachers. Using Information and Communication Technology as tool for training of teachers is as important as introducing the basics of ICT to the prospective teachers. As sources of information and expertise, as well as tools for distance communication, Information and Communication Technology can offer many new possibilities for teacher education. Teachers may through the regular use of these technologies. Use of new media, new rules of communication – even a new language – have to be learned.

References

- Gurumurthy, K - New Models in Teacher Education through ICTs, MHRD, Govt. of India, 2011.
• Meisalo, Veijo - ICT in Initial Teacher Training, Organization for economic cooperation and development.

• Resta, Paul - Information and Communication Technologies in Teacher Education, UNESCO, 2002.

• The IATE International Conference in Teacher Education and ICT: Global context, policy and framework, IATE and Department of Education, University of Bombay, December 2009.