Research Paper   **Education**

Changing Concerns of Educational Technology from National Curriculum Framework 1988-National Curriculum Framework 2005

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ABSTRACT Educational Technology (ET) and Information and Communication Technology (ICT) are the need of the hour. Since long there has been a growing demand for integration of ICT in the school education. However there are barriers to successful integration of ICT in teaching learning process. Taking a glance from NCF 1988 to NCF 2005, this paper highlights the concerns in the area of ET from development of necessary infrastructure to the demands put on the part of the educator for successful integration of ICT and provides suggestions on how to deal with the era specific concerns and future concerns as well.

KEYWORDS :

National Curriculum Framework for Elementary and Secondary Education, 1988:

ET support to teaching learning: NCF 1988 defines ET as application of system, media, methods, and materials, human and non-human resources towards the improvement of teaching learning. According to this NCF, ET could be used from mass level to microscopic levels of the classroom. It reports how ET had been used for non school going children in the form of Radio and TV sets. However it point out that media and programs also need to be accessible for universalization of education. The application of media has been devoid of proper planning and therefore there are few success stories. It identifies the stages of implementation of ET from software, hardware, training, distribution/transmission, utilization, and support to feedback. This utilization of ET requires necessary infrastructure to be constructed. Therefore the main concern identified in NCF1988 is building up the necessary infrastructure for effective integration of ET into curriculum. If the whole potential of ET needs to be exploited then proper infrastructure is a must. Very few success stories have been reported such as INSAT, SIET due to lack of infrastructure and adequate planning. Apart from this, NCF 1988 also points out the need for research and development in ET as is done in other curricular areas and the most important responsibility of training of teachers and teacher educators at larger level lies in the hands of institutes like CIET and SIET's.

National Curriculum Framework for School Education, 2000:

After the NCF 1988, the shift is from Educational Technology to Information and Communication Technology (ICT).ICT is defines as the convergence of telecommunications, televisions and computers. ICT is expected to bring out revolution in teaching learning process. The ICT is bound to transform the existing curricula and bring in the schools together through strong networks. NCF 2000 talks about the integration of ICT in school education. It states the process of education cannot ignore the social and psychological impacts of the technology. It makes the education system realize the importance of ICT in education. According to NCF 2000, ICT has great potential for sharing information and knowledge globally. ICT integration in curriculum is totally in rational with the school education. In other words, ICT can revolutionize the school education. But integration of ICT put up the following demands:

1. The teacher should devise the updated plans for education in an electronic environment, creation of a framework for enhancing learning opportunities, providing access to information etc.
2. Access to professional development opportunities for teachers to enable them to act as facilitators.
3. The teacher to adopt instructional design that enables learners to master heuristic and algorithmic strategies to tackle problems related to computer and information technologies.
4. To adopt a method of evaluation and assessment in an ICT-rich environment in order to shift from traditional learning atmosphere to an environment encouraging exploration, decision-making.
5. To shift from didactic classroom teaching to interactive group learning.
6. Mastery of subject matter to be able to understand the web of relations.
7. Revisiting the role of curriculum developer. Active participation of curriculum developer is required for all areas of multimedia computer software, interactive video etc.
8. All the above demands can be met only when teachers are properly trained for this. Teachers have to acquire new skills to be able to deliver their roles as facilitator of learning and bring in innovations not only in teaching but in learning styles also.

If we closely examine the NCF 1988 and NCF 2000, we can see the concern has changed from infrastructural needs to integration of ICT in teaching learning process. NCF 1988 emphasizes the need for infrastructural requirements whereas NCF 2000 introduces ICT as medium to bring about a revolution in teaching learning process. Thus, after the development of necessary infrastructure there is a need for proper integration of media and programs for effective teaching learning process.

National Curriculum Framework 2005:

According to NCF 2005, ET is defined as an efficient organization of any learning system adapting or adopting methods, processes, and products to serve identified educational goals. This involves systematic identification of the goals of education, recognition of the diversity of learners' needs, the contexts in which learning will take place, and the range of provisions needed for each of these. The concern identified in NCF 2005 is to design appropriate systems for each of the identified goals above. It talks about that ICT has implications not only for the quality of the interchange but also for drastic upheavals of centre-dominated mindsets that have inhibited qualitative improvement. It articulates the possible production capabilities for audio and video, multimedia, broadcast channels, Internet connectivity, trained manpower, and institutions with these mandates that can be leveraged to address the challenges of education.

After examining the previous frameworks and comprehending the concerns highlighting, NCF 2005 basically provides solutions to various issues related to pre-service teacher education, school education, updating skills of in-service teachers, reorienting the existing courses, research areas etc.

• **Revisiting the existing courses:** Take advantage of a large number of teacher training institutes and professionals to create manpower in the area of ET. Encouraging these institutions to take up new roles and contribute in developing models for interactive classes, teleconferencing, video conferencing and also generating modules for teachers. Investing in the areas of research, distance education and online courses to improve the quality of education.

• **Updating skills of in-service teachers:** Building up ICT literacy among in-service teachers to evaluate and integrate available materials into the learning process. Acquaint them to the latest technological methods of teaching learning process.

• **School Education:** To move from fixed curricula to flexible curriculum content promoting flexible curriculum transaction. To enable students to create knowledge on their own in order to be active users rather than passive so as to promote individual learning styles.

• **Pre-service teacher education:** Making them aware of the latest technology used in the teaching learning process. As they are in the pre service stage they can more easily be trained to evaluate and integrate the material into the learning process. Make them access to the sources of knowledge and to create one.

• **Research:** This is the one of the most important area to be considered. This area will promote the use of ICT in education. Successful research projects will result in successful integration of ET in teaching learning process e.g. use of mobile technologies for learning purposes. Areas like different learning styles; gender differences etc will show how learning takes place in ICT-rich environments.

Conclusion:
Over the years the need and demand for ICT has grown immensely. Modern ET has its potential in schools, in the teaching of subjects, in examinations, in research, in systemic reforms, and, above all, in teacher education, overcoming the conventional problems of scale and reach through online, anytime, anywhere. There has been different concerns and issues from NCF 1988 to 2000. We could see that there have few successful projects due to lack of infrastructure. Therefore, NCF 1988 emphasis on the need of proper infrastructure. There is a shift from hardware and software applications to integration of ICT in NCF 2000. It states technology has potential to affect the way people think and learn, this goes for education as well. ICT is evolving in the process of education. But this puts responsibility on the part of the educator as indicated above. NCF 2005 looks at the previous and present scenario related to evolution of ET in education. It provides pointers on how ET can be used fruitfully to achieve the desired goals according to the demands of 21st century.

REFERENCES • National Curriculum Framework for Elementary and Secondary Education, NCERT, 1988. | • National Curriculum Framework for School Education, NCERT, 2000. | • National Curriculum Framework 2005. | • Position Paper; National Focus Group on Educational Technology, NCERT, 2005 |