TEACHER-EDUCATION: MEETING THE NEEDS OF THE NEW GENERATION

(A Peer-reviewed Research Papers of
the Fourth National Conference of Teacher Educators)

Christian College of Education
Kanyakumari District, Tamilnadu.

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Kanniyakumari Academy of Arts and Sciences
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MEETING THE NEEDS OF NEW GENERATION LEARNERS THROUGH ICT USAGE: THE ROLE OF TEACHER EDUCATION PROGRAMMES

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ABSTRACT

Information and Communication technologies have made tremendous changes in today's classrooms which have led the students of the new generation to be more interactive. Nowadays, there is a growing need for the use of technology within the school curriculum. Utilising e-resources to ensure quality of learning is unavoidable in the present scenario and the students are engaged in electronic communications using a variety of technologies such as e-mail, instant messaging, chatting and so on. In most of the developed countries, the traditional classrooms are replaced by smart classrooms which employ modern digital communication tools that make learning interesting, interactive and collaborative. In order to apply these interactive tools into learning context and make teaching practices more effective, teachers should be trained with all types of web technologies. It is the need of the hour to provide pre-service practical training in ICT usage for teachers in the teacher education programme. For this, steps may be taken by taken by teacher educators to exploit the computer and internet to the maximum extent possible and extend the scope of ICT in B.Ed. and M.Ed. courses.

Introduction

Technology is rapidly changing all spheres of life. The use of information technology determines the level of quality in all spheres of human activity. In education also, it creates room for innovation. Recent developments in technology have changed the world outside the classroom and there is a growing need for the use of technology

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within the school curriculum. Technology is to be used effectively to create new opportunities for learning and promote greater attainment for students. The use of information technology can be made feasible only when there is wider usage of it in teacher education courses.

Information and Communication Technology

Scientific inventions have influenced every aspect of human life. With the emergence of different multimedia, books and newspapers are now gradually being given a secondary role in developed countries. Teaching machines like computers and television are now being used frequently in the teaching-learning process. A large number of students can benefit from the use of technology wielded by an effective teacher. The NCERT National Curriculum Framework (2005) emphasized the judicious use of technology to increase the reach of educational programmes, facilitate management of the system as well as address specific learning needs and requirements (NCERT, 2005).

Information and communication Technology is an important instrument which can transfer the present isolated, teacher-centered, book-centered learning environment into a rich student-centered environment. Utilising e-resources to ensure quality of learning is unavoidable in the present scenario and the students are engaged in electronic communications using a variety of technologies such as e-mail, instant messaging, chatting and so on.

Ict to Enhance Quality in Education

Modern technology is considered as a major determinant in the development of a nation. Though India is the fourth largest user of the internet, the percentage of the total population using the internet is insignificant (Chandel, 2008: 28). Different technologies deliver different kinds of content and serve different purposes in the classroom. Each technological invention is likely to play a different role in student's learning. Educators of the 21st century must become better at understanding when and under what conditions, technology can best be used to leverage student's learning (Kappen, 2010: 306).

Every teacher today needs to be tech-savvy, proficient in pedagogy and strong in their subject area content to measure up to the modern expectations. Teachers are expected to know how to successfully integrate technology into their subject areas to make learning relevant and meaningful. Transformation through innovative pedagogy by harnessing newer technologies to make teaching-learning programmes more interesting and intelligible must be in the pipeline to develop the concept of 'techno-pedagogy' to a greater extent.

Current Status of Teacher Education Programmes

Teacher education is one of the important areas of concern as it influences the school education directly. Quality is the important concern of all – the NCTE, state governments, universities and other related sections of the society. At this point, information technology has to play its significant role in quality improvement of teacher education as it overcomes some of the pedagogical problems of time, space and number of learners in the class. Hence, integration of information technology is of primary importance to improve quality of teacher education because it creates the new approaches, methods and techniques of independent and interactive learning (Prasad, 2009: 18).

The overall system of teacher training in our country has been found wanting for decades and many recommendations have been made by expert panels for improvement. A good critique of what ails the B.Ed. as well as diplomas in education is to be found in the National Curriculum framework for Teacher Education. A key point the framework makes is that state provisioning of elementary education is marked by an attitude of resignation towards the existing system of pre-service and in-service training, which leaves little inspiration for the practitioners to improve (The Hindu, January 17 2013).

Demand for a greater number of teachers has led to massive quantitative expansion of the number of teacher training institutions and courses at various levels in recent years, but without the necessary emphasis on infrastructure, faculty qualification and learning resources. Mushrooming of teacher education institution with poor faculty and

inadequate facilities leaves much to be desired. Teacher education is not effective in turning out competent teachers and therefore its content and delivery system need to be reviewed and reformed in the light of the technological and pedagogical advances that developed countries have witnessed.

There are several constraints in the effectiveness of the teacher education programme. Most of the teacher educators are not trained in the utilization of technologies in the classroom context. Most of the teacher educators are not trained in the utilization of technologies in the classroom context. Secondly, many teacher educators have not even taught in the schools. So they develop a hypothetical conception regarding the actual functionality of the classroom and children's interaction with teachers. This does not provide them with actual experience of the classroom which ultimately diminishes the actuality of the teacher education programme (Ahmad, 2009: 12).

The most important area of concern is the lack of facilities seen in the teacher education institutions. In most of the B.Ed. colleges, there are fewer computers than are needed for the students. In some colleges, computer systems are seen to be outdated. Access to internet is denied to them which seriously handicaps them in the gathering of the latest information and inputs necessary for the acquisition of knowledge and its scientific application.

Integrating ICT into Teacher Education Programmes

In most of the developed countries, the traditional classrooms are replaced by smart classrooms which employ modern digital communication tools that make learning interesting, interactive and collaborative. In order to apply these interactive tools into learning context and make teaching practices more effective, teachers should be trained with all types of web technologies. The NCERT National Curriculum Framework (2005) emphasized the judicious use of technology to increase the reach of educational programmes, facilitate management of the system as well as address specific learning needs and requirements (NCERT, 2005).

The proper use of technology in the classroom increases the teaching competency of the teacher and makes the teaching very effective. So the proper use of technology such as computers, internet, e-mail etc has to be made available for contemporary students whose pace of learning has to gain greater rapidity.

Accordingly, there is a need to update the course content in teacher education and motivate faculty members of all subjects and teacher trainees at every level to upgrade their knowledge and develop their skills in the use of multimedia for multifarious teaching. Methodology teachers, in particular, should focus on the use of information technology with the help of technical experts in their daily teaching activities. Deputation of personnel of technical skills from the university and related institutions to colleges will help the faculty members and student teachers to work in the direction of integrating technology in teacher education (Prasad, 2009: 18). It is the need of the hour to provide pre-service practical training in ICT usage for teachers in the teacher education programme.

Teacher education institutions have to play a major role in shaping the teacher trainees with adequate knowledge and training in the use of ICT tools in their classrooms. The integration of ICT in education in general and teacher education in particular is the urgent need of the day. The infusion of ICT into teacher education programme will help the future teachers to cope with the paradigm shift in learning (Raj & Krishnaraj, 2012: 3). Positive changes in school curricula and quality of education is possible only when there are corresponding changes in Teacher Education courses.

Role of Teacher Educators

Even though there are various technologies, most of the teacher educators adopt the traditional method of teaching. This will in turn make the prospective teachers also to follow the same method. The reason behind this is lack of awareness about information technology and laziness to take initiatives. There is an immediate need for redefining teachers' role by launching professional development

programmes to train teacher educators in the use of new technologies of ICT (Manohari & Raja, 2010: 190).

Demonstrating the utilization of different technological uses by teacher educators will help the pre-service teachers to understand clearly how effectively technology can be integrated in teaching to make teaching-learning effective, forceful and interesting. Therefore, teacher educators must prepare a lesson based on the use of technology in front of the teacher trainees (Ahmad, 2009: 12).

Teacher educators have the sole responsibility of preparing the future teachers for the globalised community of learners. According to NCTE (1998), teacher educators' changing responsibilities include:

i) Demonstrating and encouraging the use of technology across curriculum to the pre-service and in-service teachers

ii) Keep abreast, plan and implement e-learning in the professional development in their respective institutions

iii) Interact through e-mail with trainees, participating schools and parents, become active and competent online users and hence direct trainees and teachers to the digital resources (Kappen, 2010: 306).

Teacher educators need to be not only competent in their province of specialization, but also committed in their profession. Commitment here signifies their willingness to give all their available time and energy in the training of prospective teachers to do their work in a spirit of selfless service. They need to be creative in their methods of teaching and the use of technology. Creativity here implies carrying out their activities in new and different ways which in turn are bound to make their students innovative in their thinking and work culture.

Conclusion

It is the need of the hour to integrate technology into every teacher education programme to make a significant difference in the changing scenario of education. Managers and heads of institutions need to encourage and develop professional development opportunities related

to technology. Effective use of technology in schools can improve educational opportunities and go a long way in enhancing the quality of higher education as well. For this, steps may be taken by teacher educators to exploit the computer and internet to the maximum extent possible and extend the scope of ICT in B.Ed. and M.Ed. courses. Technology planning must be an integral part of the institutional culture. Our education should seek to create an effective performance culture which could replace the ossified work culture prevalent now.

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