

**INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN  
TEACHER EDUCATION IN THE CENTRA OF  
GLOBALISATION**

**NIZHA KHAN**

**MEd Student**

**Farook Training College**

**Calicut**

**PIN 673632**

Ph: 9947617383

Email: [nizhakhan@gmail.com](mailto:nizhakhan@gmail.com)

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## **INFORMATION AND COMMUNICATION TECHNOLOGY ( ICT) IN TEACHER EDUCATION IN THE CENTRA OF GLOBALISATION**

### **ABSTRACT**

This paper examines the ICT curriculum in the teacher education programmes of Kerala in the context of globalisation . Globalisation indicates interconnectivity of technologies (Kishan,R .2008) .The quality of education is a direct outcome of the quality of teacher education system . Due to globalization ,the last five decades witnessed several attempts to change and modify the inherited system of teacher education. The technological advancement had affected these modifications . The ICT curriculum implementation is one such change . The paper compares curriculum in India and other developed countries and it was found that the developed countries have highly technological oriented curriculum than India . Personal interviews and discussions were conducted among the teacher educators who are handling ICT in the teacher education colleges .On the basis of interviews and discussions many problems in dealing with the ICT in teacher education programmes are found out .It is found that there exists a wide gap between the ICT curriculum and changing needs of the society when looking things in a global perspective . It was also examined the reason behind the gap between the ICT curriculum and changing needs of the society . The teachers are not competent enough to handle ICT paper in teacher training colleges there was no specialist teacher to handle the ICT paper . It also found out lots more problems behind. Finally the paper look into the challenges and issues faced by teacher educators in the fullest utilization of information and communication technology. Since globalization is creating fast paced , competitive environment through technology and communication which education must keep up with the coming generation cannot be effective in tomorrows world if they are trained in yesterdays skills .

## INTRODUCTION

India had made impressive strides in the application of information and communication technologies (ICTs) in the recent years and that is reflected in the vibrant fast growing economy . Today all our activities are knowledge based . There is a shift from industrial era to information era . Globalization , liberalization , and market oriented economy had added a new flavor to all our activities , with the result that knowledge and skills of every professional , including teachers need to be updated .

However in the teacher education sector , particularly the area of teacher education had lagged behind other sectors of the Indian economy is benefiting from the fruits of technological development . Today's educational system faces the challenge to prepare individuals for the information society , where the most important aim is to handle information . The primary concern for educators is to develop fullest potential of all students affording them opportunities to pursue a variety of avenues to success . Teacher education institutions have a critical role to provide the necessary leadership in adapting pre- service and in-service teachers to deal with the current demands of society and economy . They need to model the new pedagogies and tools for learning with the aim of enhancing the teaching-learning process . Globalization has created an environment to make a close network between individuals , groups , institutions and organizations around the world, sharing of views and ideas and acquisition of knowledge on the newer field has become inevitable .

In this paper an attempt has been made to examine the ICT Curriculum in Kerala in the context of globalization . A comparison between ICT curriculum in India and the difficulties faced by the teacher educators and students in dealing with ICT in the teacher education programmes . Finally the role of ICT in teacher education in the era of globalization were also included .

## **ICT CURRICULUM IN KERALA**

ICT is one of the contemporary factors in shaping the global economy and producing rapid changes in the society . They have fundamentally changed the way people learn, communicate and business . They can transform nature of education , where and how learning takesplace and the roles of students and teachers in the learning process .

In Kerala , a component of ICT in one form or other and to different extends is now an integral part of the Teacher education curriculum for all students either at the diploma level or at the degree level . But in post graduation level like MEd or MA Education ICT is not introduced in the syllabus . The major portion of ICT curriculum for teacher education programmes is theory oriented but not practical oriented . The student teachers are feared in using new technologies like Internet , LCD projector , softwares for making learning aids which include Microsoft word , power point , etc , since practical classes were not conducted during the course . Eventhough we are living in highly technological era the student teachers are not using any ICTs in their instruction during practice teaching. So the curriculum of Teacher education programmes are not able to make prospective teachers and teacher educators ICT literate . So the teacher education in Kerala are following the same road for over fifty years and that road had reached dead –end from the several points of view . The need for the hour is to open up the dead end of the road of education and design and engineer the new road .

## **COMPARISON OF THE ICT CURRICULUM IN INDIA AND OTHER DEVELOPED COUNTRIES**

Eventhough India had a large teacher education system , in some perspective we can say India is lagging behind other developed countries . The main differences between teacher education in India and other developed countries are following :

1 . The developed countries have ICT paper in their syllabus along with general paper and they have integrated it with all the subjects in the teacher education .

2 . The seminar papers , assignments , project works , are prepared in the CD form in the developed countries But we are still following conventional methods .

3 . During the practice teaching or internship the student teachers of developed countries have facilities in using Audiovisual aids and ICTs in their instruction while we are following behaviouristic pattern eventhough constructivstic and issue based curriculum are advocated .

4 . The student teachers of developed countries are allowed and encouraged to use Web based references which are prscribed in their syllabus But we are still without good libraries .

5. The student teachers of developed countries must make use of multimedia for their seminars and presentations but in our country the degree level teacher education programmers do not included seminars or presentations and the postgraduate level had included the seminar or presentations. But we are not fully using multimedia for the purposes.

6. The students are encouraged to submit their assignments as E-mail attachments in the developed countries but we are far behind that.

So definitely our curriculum needs to be revised according to the global needs. The revised curricula should take initiation to make ICT literacy a compulsory one in the pre-service course of teacher education. The major objective of the curriculum is that it should enable the student teachers to effectively use ICT in teaching, learning, use multimedia for preparing

lesson plans, document creation, communication and dissemination of information using electronic media, etc.

## PROBLEMS DEALT WITH ICT IN TEACHER EDUCATION

Interviews and discussions were conducted among the teacher educators who are handling the ICT paper in the teacher education centers. From the interviews and discussions, lots of problems and challenges in dealing with ICT in teacher education programmes are found out. The most critical factor in the successful integration of ICTs into teacher education is the extent to which the teacher educators have the knowledge and skills for modelling the use of ICTs in their own teaching practices. Given the global context of teacher education and recent advances in its theoretical foundation, standards, and guidelines, and in resources for developing plans for the integration of ICTs, it is now feasible to conceptualize a realistic vision for ICT-supported teacher education.

One of the chief parameters of globalization is creating a conducive environment for the free flow of technology (Selinger, M. 2004). The most important challenge faced by the ICT in the teacher education is that the free flow of technology is not possible due to the constraints on the part of institutions, teacher educators, administrators, etc. The main constraint is that the institutions do not have enough facility as assumed by the NCTE. The second problem dealing with it is that, even though ICT is incorporated as a separate paper in the syllabus there is no specialized teacher for handling this paper. Generally teacher educators who taking other subjects are dealing with ICT also. Since they are not well versed in the practical aspects of ICT, more stick on to the theoretical aspects than practical. Along with this the teachers are satisfied to teach as the way they please, however most of them rely on traditional chalk and talk method. The priority of the administrators is not on the quality of the teacher education but have a critical eye on the cost and financial burden while

implementing and allowing student teachers to use the technologies . Teachers are the key to the successful integration of ICT into education. They manage the processes of teaching and learning. Without the active, enthusiastic and skilled participation of teachers, innovations to enrich education with the advantages offered by technology are doomed to fail. The full participation of teachers in adopting new technologies to enhance education requires a commitment to ongoing professional development of teachers.

The teacher education centers are providing teachers for the future and it was assumed that the teachers are the key figures in arranging teaching –learning process . therefore the teacher education centers have to anticipate new developments and prepares prospective teachers for their future role . Teacher education centers have to shift their focus from dealing with present education to that of future education . Since globalization is creating fast paced , competitive environment through technology and communication , which education must keep up with coming generation could not be effective in tomorrows world if they are trained in yesterdays skills . From the above discussion it was found that there exists a wide gap between the ICT curriculum in the teacher education programmes and changing needs of the society .

#### THE ROLE OF ICT IN TEACHER EDUCATION

Broadly speaking, ICT can be used in education in two ways: as a subject (learning to use ICT) and as a tool (using ICT to learn). Using ICT to learn requires first learning to use ICT. Teacher education have to focus on both .

The aim of integrating ICT into teacher education is that( Buettner, Y , 2006) :

To equip teachers with the knowledge, understanding and skills about when and how to use ICT in their teaching.

\*To raise the standard of students' achievement by increasing the use of ICT in their learning.

\*To create a national resource data bank of high quality, technology-enhanced teaching and learning materials created by teachers for teachers.

\* To enable teachers to make sound judgements about when and how to integrate ICT in the classroom.

\*To enable teachers to acquire the confidence and skills to make use of and to integrate ICT into their lesson plans and teaching of the subjects in the classroom.

\*To provide teachers with access to the national resource data bank: an ever-growing pool of teaching materials .

Educational systems around the world are under increasing pressure to use the new information and communication technologies (ICTs) to teach students the knowledge and skills they need in the 21st century . ICTs may also support effective professional development of teachers in to how to use ICTs. A limited initiative to integrate an innovative approach to teaching and learning with one new technology for a large population of teachers can be an important early step for a nationwide strategy . The initiative is successful in developing teachers' pedagogical, language, and technology skills , Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. The incorporation of Information and Communication Technologies in education and training programmes has profound influence in teaching and teacher preparation. The student accesses

knowledge and information through Internet, TV, satellite and cable network and digital media to synchronise learning mediated through these multiple delivery mechanisms . Educational systems around the world are under increasing pressure to use the new Information and Communication Technologies to teach students the knowledge and skills they need in the 21st century. For a pre-service teacher education program without an integration of Information and Communication Technology, it could not be said to be a complete one. Hence arises the need to study the status of ICT education in teacher training institutes and utilisation of ICT by teachers at school level. Teacher education programs need to prepare and support teachers in the appropriate choices and uses of ICT environments . Students are nowadays much more in to new technologies than getting knowledge from worksheets. The teacher must take the new role as a facilitator and accept the shift in power relations . The teacher's role in a classroom shows a great variation, such as a central leading person, an advisor, a mentor, a planner, a technician, a link between the student and the computer, an educator or a combined technician and educator(Jedeskog 2000). Other roles can be a subject authority, an organizer, a task interpreter, an interlocutor or a user support. The facilitator role for learning that stimulates students to reflect on problems, with emphasis on metacognition , scaffolding, conflict resolution and task designing is important today. (Hansen & Åsand 2002). ICT changes the way we, as teachers, teach. Teachers also realize that not only the method of teaching but also the content

of teaching will be affected by using ICT in the classroom. ICT is changing the way in which we teach the important influence of the teacher who decides: how the ICT resources are chosen, how they are used in schools and the classroom and how the pupils interact with the materials. Teacher's input will crucially affect the impact of ICT use on students' learning (Cox and Marshall, 2007). Advanced technologies offer to teachers and students a lot of new services for learning and teaching. So the role of ICT in the teacher education programmes could not be ignored .

## CONCLUSION

Education plays a vital role to overcome the challenges faced and to maintain stability in the era of globalization . In the era of globalization ,the teacher education programmes in our country needs to be changed keeping in view to provide employment around the globe . Even though different modes of teacher education programmes are being offered namely DEd , BEd , MEd and MA Education , it is already noticed a mismatching between training and placement . The reason behind this is that we are lagging behind in using latest technological developments . ICT in education will not function on their own . It is the teacher who are required to use technologies to enhance student learning . So the foremost task is the development of ICT trained teacher educators , otherwise it is not possible to prepare new generation of ICT literate teachers . For this ICT should be incorporated into the entire curriculum

Research has also shown, however, that success in the use of ICT in education depends largely on teachers and their level of skill in integrating ICT into the teaching process and in utilizing ICT to provide learner-centred, interactive education. Therefore, training teachers to be able to use ICT and to integrate ICT into teaching is crucial for achieving improved educational outcomes with ICT.

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