

ICT IN TEACHER EDUCATION PROGRAMME

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ABSTRACT

In this new era of liberalization, privatization and globalization, the role of Information and Communication Technology in teacher education programme is an issue of great concern. Educational systems are under increasing demand to use the ICT to teach students the knowledge and skills they need in the 21st century. So it is an urgent need to make both the in-service and pre - service teachers competent to the use of ICT in teaching learning process. NCFTE, 2009 also stress upon the role of ICT for professional development and academic support of the pre-service and in-service teacher. For this purpose NCTE include ICT in the curriculum of the professional course like B.Ed. and M.Ed. But in practical situation several challenges are facing at the time of implementation of ICT. The present paper is an attempt to make an overview about ICT in teacher education programme. The paper will also focus on the challenges for implementing ICT and its prospects too.

KEYWORDS: *Information and Communication Technology, Teacher Education.*

INTRODUCTION

Teacher Education is an important area of concern. Various policies, advisory groups, commissions were built up to enhance and change the status of teacher education. In order to enable the teachers to act as catalyst in the presses of developing the future citizens, the teachers' education programme needs to be revised and revamp from time to time. 21st century is the age of liberalization, privatization and globalization. In this context, quality assurance is demandable everywhere and quality comes from quality education. Teachers have the responsibility of quality reforms at the grassroots and it is only the ICT based education which ensures quality reforms by the teacher educators. Modern world is a world of technological revolution. In today' world teachers need to be equipped not only with subject specific expertise and effective teaching methodologies but with the capacity to assist students to meet the demands of the emerging knowledge based society keeping this in View there is an

increasing need to incorporate ICT based education to meet the challenges of globalization. For this purpose NCTE include ICT in the curriculum of the professional course like B.Ed. and M.Ed.

OBJECTIVES

The main objectives of the paper are-

- i. To find out the role of ICT in teacher education.
- ii. To identify the challenges for Introducing ICT in Teacher Education Programme
- iii. To find out some suggestions for overcome those challenges.

DATABASE & METHODOLOGY

Secondary sources like books, Articles, Journals, Thesis, websites are database for this paper. Descriptive method is used.

TEACHER EDUCATION

The National Council for Teacher Education (NCTE) has defined teacher education as – A programme of education, research and training of persons to teach from pre-primary to higher education level. Teacher education is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein. Teacher education encompasses teaching skills, sound pedagogical theory and professional skills. An amalgamation of these skills would serve to create the right knowledge, attitude and skills in teachers, thus promoting holistic development. It is an attempt to provide opportunities for understanding self and others (including one's beliefs, assumptions and emotions); developing the ability for self analysis, self-evaluation, adaptability, flexibility, creativity and innovation. It provides opportunities to develop professional skills in pedagogy, observation, documentation, analysis and reflective inquiry and critical thinking.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

ICT is a generic term referring to technologies, which are being used for collecting, storing, editing and passing on information in various forms Information and Communication Technologies, (ICT's) are one of the major contemporary factors that shaping the global economy and leading to rapid changes in society. ICT have fundamentally changed the way of learning. ICT can transform the nature of education, where and how learning

takes place and the roles of students and teachers in the teaching learning process. ICT have the potential to enhance access, quality and effectiveness in education in general and to enable the development of more and better teachers in particular. The ICT is being utilized as a part of teacher education as a capable apparatus to move the present to that of future instruction of what and how to upgrade and exchange reasonable technology utilize abilities among youthful teacher students. The utilization of ICT in teacher education is lingering behind expectation and want.

RATIONALE FOR INTRODUCING OF ICT IN TEACHER EDUCATION

ICT is introduced in teacher education at different levels as a mandatory subject or an uncommon field subject. Here and there, it is likewise presented as one of the subjects to be contemplated under a course titled 'Educational Technology'.

The main rationale for presenting ICT in Teacher education are-

- The main reason for presenting ICT in Teacher Education is 'Social'. ICT assumes an imperative part in the public arena and along these lines the requirement for acclimating learners and teachers with ICT is expanding every day.
- The second justification for presenting ICT in Teacher Education is 'Professional'. ICT prepares the students and teachers for occupations that require aptitudes in innovation.
- The third justification for presenting ICT in Teacher education is 'synergist'. There is an extraordinary utility of innovation to improve performance and effectiveness in teaching, management and numerous other social exercises.
- The fourth method of reasoning for presenting ICT in educator instruction is 'Pedagogical'. The present period is a time of rivalry and in this time there is an extraordinary need to enhancing learning, flexibility and efficiency in curriculum delivery for teachers so that they can effectively contribute in the overall development of children advancement of youngsters.

TECHNOLOGIES INCLUDED IN ICT

ICT keeps pace with the most recent advancements with the assistance of various innovations incorporated into it. Radio and Television (broadcasting technology), Telephone, Computers and Internet, Video cameras, mobile phones, individual computerized aides are general Technologies incorporated into ICTs. The modern uses of ICT are discussed below:

- ❖ **www** – www stands for world wide web which is one of the most important and widely accepted services of Internet. It is very easy to use and contain rich content.
- ❖ **E-learning**– e-learning is also known as online learning. E-learning encompasses learning at all levels both formal and non-formal that uses an information network. The components include e-portfolios, cyber infrastructures, digital libraries and online learning object repositories. All the above components create a digital identity of the user and connect all the stakeholders in the education. It also facilitates inter disciplinary research.
- ❖ **Group Discussion:** Group of people with common interest can exchange views / opinions with each other instantly through Internet. Description of the internet technologies required to support education via ICTs (www, video conference, Tele-Conference, Mobile Conference, CD Database, Word-Processor, Intranet, and Internet etc.)
- ❖ **E-Modules:** Modules written are converted and stored into digital version into a computer using word processor accessible by the user through internet.
- ❖ **Teleconferencing** – Teleconferencing refer to interactive electronic communication among people located at two or more different places. There are four types of teleconferencing based on the nature and extent of interactivity and the sophistication of technology: -
 - Audio Conferencing - It involves the live (real-time) exchange of voice messages over a telephone network.
 - Audio Graphic Conferencing: When low – band width text and still images such as graphs, diagrams or picture can also be exchanged along with voice messages, then this type of conferencing is called audio-graphic
 - Video Conferencing: Video Conferencing allows the exchange not just of voice and graphics but also of moving images.
 - Web Based Conferencing: Web-based conferencing refers to the transmission of text and graphic, audio and visual media via the internet; it requires the use of a computer with a browser and communication can be both synchronous and asynchronous.
- ❖ **Distance Learning:** Distance learning is facilitated by ICT. The use of a variety of media, including print and electronic, two-way communications allows learners and tutors to interact and delivery of courses.

All these services availed through ICT plays a great role in teacher education. It allows higher participation and greater interaction. It also improves the quality of education by facilitating learning by doing, directed

instruction, self-learning, problem solving, information seeking and analysis and critical thinking as well as the ability to communicate, collaborate and learn.

ROLE OF ICT IN TEACHER EDUCATION

The main roles of ICT in teacher education are as follows-

- ICT encourages teacher educators to communicate with students in various ways.
- ICT helps educators in arrangement for instructing or teaching the learner with viable way. Diverse apparatuses are utilized, for example, word preparing, Database, Spread sheet and so on. Different innovation based plans are utilized to help the instructors for their work on educating.
- ICT encourages teacher educators to access with establishments and Universities, NCERT, NAAC, NCTE and UGC and so on.
- . It helps in enhance Teaching expertise, helps in creative Teaching. It helps in enhancing proficient development and educational administration and in addition improves active learning of Teacher Trainees.
- ICT utilized as a “supporting tool” for instance while making assignments, conveying, gathering information and documentation, and leading examination.
- ICT is a medium for educating and learning the content with fruitful manner. It is an apparatus for educating and learning itself, the medium through which teacher can educate and students can learn.
- ICT encourages Teacher to discuss legitimately with their students. So ICT conquer any hindrance amongst teacher and students.
- ICT makes a difference sense among teacher to find out creative students in the institution.
- ICT causes Teacher to persuade students and developing enthusiasm for learning.
- ICT accommodate for specialized preconditions. ICT accommodating for planned learning circumstances which are required for both professional instruction and the preparation of future teachers (in the teacher training institution).

CHALLENGES FOR INTRODUCING ICT IN TEACHER EDUCATION PROGRAMME

In practical situation several challenges are facing at the time of implementation of ICT in teacher education programme. This are-

- Most of the teacher training institutes facing lack of physical infrastructure and monetary fund.
- Most of the teacher educators are not aware of the recent inventions and innovations in technological field.
- Due to administrative troubles, teacher educators cannot implement or maintain ICT

- Traditional practices are still practiced in the field of teacher education which hampers the success of I.CT
- For implementation of ICT trained personnel are required. Most of the institutes are facing lack of these experts.
- It is found that schools are not always ready to provide liberty where teacher educator can go through the actual teaching learning process.
- All the teacher educators are not research oriented to find out the effectiveness of the ICT.

SUGGESTIONS

To overcome the aforesaid challenges the following suggestion may be effective. This are-

- Innovative researches in the field of teacher education should be identified and made available for all the institutes to follow these innovations.
- All the teacher education institutes must be well connected so that time to time they can exchange their resources.
- Teacher educators should be more flexible to adopt innovations, new technologies.
- Physical infrastructure and funds should be adequately provided to the institutions by the government, local bodies and organizations.
- Instead of traditional methods modern relevant methods of instruction such as tutorial, seminar, team teaching and interactive teaching learning should be adopted.
- Modern technological equipments should be used.
- The management and administrators should be aware in maintaining the health of the institutions so as to make them innovative and progressive.
- A healthy relation among teaching staff would evolve new procedures and move towards new goals.
- A good relation among institution, surrounding schools and community should be encouraged.

CONCLUSION

Teacher education in India is at a challenge in present day of globalization processes. Indian Teacher education needs to orient itself to the new challenges and enable its students to compete level. The students who are pursuing teacher education are required to adopt new skills and attitudes as well as competitive knowledge in the stream of education concerned. All these can be possible through practice of ICT in Teacher Education. It can be concluded that in modern era of information and technology, traditional practices cannot be sustained long. New technological and innovative practices make the teacher education programme more effective. The teacher

educators need intensive training in various aspects related to ICT. The teacher is the crucial person & play important role in education system. The trained, skilled & committed teacher can use various innovative strategies. It will make the whole education system advanced and which will produce quality education and enlightened citizen which contribute for the development of the nation.

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