ICT AND PEDAGOGICAL PRACTICE IN TEACHER EDUCATION

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Abstract:-

Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavor within business and governance. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers high degree of personal contacts with learners. The use of ICT in education lends itself to more student centered learning settings, but with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. Teacher preparation needs to think more about the different roles a teacher needs to meet the new challenges in the information society. Technologies can revolutionize the entire teacher education system which is the need of hour with the help of the technology integration into teacher education program through content and pedagogy, collaboration, social issues and technical issues.

Education encompasses teaching and learning specific skills. Education has on off its fundamental aspects the imparting of culture from generation to generation, yet it more refers to the formal process of teaching and learning found in the school environment. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of Endeavour within business and governance. The role of ICT in education is becoming more important and this importance will continue to grow and develop in the 21st century.

ICT and Communication Technologies:-

The phrase information and communication technologies(ICT) refers to forms of technology that are used to transmit, process, store, create, display, share or exchange information by electronics means. It includes such technologies as radio, video, DVD, telephone, satellite systems, computer network, hardware, software and services associated with these technologies such as video conferencing, interactive whiteboard, e-mail and virtual classroom.

ICT for Education:-

Primary uses of ICT are of development of teaching skills and providing tools for teachers and students. Successful education application of ICT are involving a complex, interplay of contexts, people activities, machines and available software within specific setting. The use of ICT in the educative process has been divided into two broad categories: ICT for education refer to the development of ICT specifically for teaching, learning purposes, while the ICT in the education involves the adoption of general components of ICT in the teaching learning process.

ICT in Teacher Education:-

The integration of ICT into teacher preparation programs is first and foremost ,creating an environment for student activities and sustainable learning experience. ICT in teacher education provides a holistic framework and defines area of ICT competency in four groups as follows-

1. Content and pedagogy- Focus on the teachers who apply ICT in their respective disciplines to support and extend teaching learning.

2. Collaboration and networking- ICT extends learning beyond the classroom and development of new knowledge and skills.

3. Social issues- The use of ICT in the promotion of a healthy society, understanding moral codes.

4. Technical issues- Includes technological proficiency and the provision of both technical infrastructure and technical support for ICT integration throughout the curriculum.

These competencies are developed and utilized in technology-pedagogy integration in the following four supportive themes-Context and Culture, and Vision, Lifelong Learning and Management of change.

UNESCO planning guide for ICT in teacher education cities three key principles for effectiveness of ICT development in teacher education.

•   Technology should be infused into the entire teacher education program.

•   Technology should be introduced in the context.

•   Student-teacher should gain experiences through innovative technology in teacher education program.

Primary Approaches of ICT in Teacher Education:-

Approaches-

1. ICT skill development approach.

2. ICT pedagogy approach.

3.   ICT subject specified approach.

Skill development approach-

Student educators are expected to be skilled users of ICT in their day to day activities ,provide knowledge about hardware and software and their use in the educational process.

ICT Pedagogy approach-

This approach is useful to extent that the skills enhance ICT literacy skills and pedagogy allows student educators t further develop and maintain their skills in the context of designing classroom based resources.

ICT subject specified approach-

From this approach student educators learn how ICT is embedded in to ones own subject area.

Effective Pedagogical Practices with ICT:-

This literature review has identified a range of practices which should be part of teachers pedagogical frameworks if they are to integrate ICT effectively in to teaching, learning and the curriculum. These include the need for teachers to-

➢ Understand the relationship between range of ICT resources and the concept, processes and skill in their subject.

➢ Recognize which kinds of class organization will be most for particular learning tasks with ICT, for example, when pupils should work on their own how working in pairs and groups should be organized and when to use ICT for whole-class teaching.

➢ Know how to prepare and plan lessons where ICT is used in ways which will challenge pupils understanding and promote greater thinking and reflection.

➢ Appreciate that some uses of ICT will change the ways in which knowledge is represented, and the way the subject is presented to and engage pupils.

➢ Develop confidence in using a range of ICT.

➢ Use their subject expertise to select appropriate ICT resources which will help them meet the specific learning objectives this includes subject-specific software as well as more generic resources.

Advantages of ICT:-

1.   The teachers consider that ICT make an important contribution to schools, helping the teaching and delivery of curriculum in number of ways.

2.   ICT can help teachers make the lesson more interesting.

3. ICT encourages teachers to vary the ways in which they organize pupils, in their lessons, for example computer partners, pairs, larger, groups.

4. Teachers can prepare for relevant activities before hand, for example select suitable websites or prepare a folder of images. An important activity for the teacher is to prepare tasks requiring pupil to demonstrate their knowledge.

The pedagogical practices of teachers using ICT can range from only small enhancements of practices using what are essentially traditional methods, to more fundamental change in their approach to teaching. For example some teachers using an interactive whiteboard have displayed content and ideas for class discussions in traditional way, while other teachers have allowed pupils to use the whiteboard to present drama to the whole class what they had planned and filmed themselves, will be more effective. The use of ICT for teaching learning process is beneficial. A teacher is successful and wanted if he uses ICT is his daily lectures.

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