

## **ICT tools for techno-Smart generation**

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### **Abstract**

Teaching is becoming one of the most challenging professions in our society where knowledge is expanding rapidly and much of it is available to students as well as teachers at the same time. The rapid growth and improvement in Information Communication Technology (ICT) has led to the diffusion of technology in education. It is believed that ICT would bring many advantages to the students if it is used under the right circumstances. ICTs are providing a platform and an incentive to standardization of education and as the growing technology is revolutionizing the very concept of multimedia education, online education, virtual education and virtual classrooms. The present study was conducted in Dindigul district among teacher educators; ICT Tools used for Classroom Instruction among Teacher Educators, the survey method was adopted for this study. Data collected from 100 teacher educators of colleges of education and University department. Data have been analysed through SPSS package; the present study reveals ICT Tools usage is average among teacher educators for classroom instruction in Dindigul District.

**Keywords:** ICT Tools, Classroom Instruction, Teacher Educators, and Dindigul district

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### **Introduction**

Teaching is becoming one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies in their teaching. While new technologies increase teachers' training needs, they also offer part of the solution. Information and communication technology (ICT) can provide more flexible and effective ways for professional development for teachers, improve pre- and in-service teacher training, and connect teachers to the global teacher community.

One of the challenging professions in our country is teaching. Also it is said that teaching is the noblest of all professions. The development of Information and Communication Technology (ICT) has given new dimensions to the pedagogy. Pedagogy is the science and art of teaching. Teaching and learning function in tandem. Appropriate pedagogical training would benefit everyone engaged in the task of teaching. ICT develops pedagogical skills, for bringing innovations in teaching-learning process. It improves the perception and understanding of the world of the student to the teacher. ICTs are potentially powerful tools for extending educational opportunities; it brings more materials and resources for classroom interaction. Quality assurance and enhancement in all educational endeavours can be reassured with ICT. ICT as a knowledge resource provides access to different sources of information to teacher and student the key component of education system. Teaching-learning process is made interactive by integrating information and communication technology. So it is high time that teachers should equip themselves on par with the development of ICT and only then they can discharge their duty effectively and usefully. ICT not only facilitates delivery of instruction, but also learning process. ICT develops international collaboration and networking in the field of education and professional development.

### **Review of Related Literature**

UNESCO (2000) <sup>[24]</sup> notes that the new technologies challenge traditional conceptions of both teaching and learning and, by reconfiguring how teachers and learners gain access to knowledge, have the potential to transform teaching and learning processes. ICTs provide an array of powerful tools that may help in transforming the present isolated, teacher-centered and text-bound classrooms into rich, student-focused, interactive knowledge environments. To meet these challenges, schools must embrace new technologies and appropriate new ICT tools for learning. They must also move toward the goal of transforming the traditional paradigm of learning.

Dept of Education, UK (2000) states that ICT can provide opportunities to engage and motivate children and meet their individual learning needs. It can make significant contribution to teaching and learning across all subjects and ages, inside and outside school, help link school and home by providing access to teaching and learning and to assessment and attendance data from home. It enables schools to share information and good practices, intelligent information management systems, integration between curriculum and management, monitor individual progress, use shared plans and other resources etc.

Reil (2000) <sup>[23]</sup> argues that much of what we now see as individual learning will change to become collaborative in nature. Reasoning and intellectual development is embedded in a familiar, social situation of everyday life; so social context of learning has a great deal of importance. Collaborative learning is, therefore, enjoying an increasing share in the curricula of schools, with ICT playing a central role.

### **Need for the study**

Teacher educators have always played a crucial role in preparing communities and societies towards exploring new horizons and achieving higher levels of progress and development. Hence effective combination of Educational Technology and teaching skills contribute solutions to the

problems of the country by developing desirable understanding of attitudes, skills and abilities of the students. Information and Communication Technology helps the teacher educators to facilitate classroom teaching and learning process of students. Present study emphasis ICT tools used for classroom instruction among teacher educators in Dindigul district.

**Statement of the problem:**

Information Communication Technology (ICT) develops pedagogical skills, for bringing innovations in teaching-learning process. The good teaching plays a key role in deciding the quality of learning. ICT – Pedagogy for improving/ enhancing quality of teacher educators. So present study entitled “ICT-Pedagogy used for Classroom Instruction in College of Education”

**Objectives**

- To find out the ICT tools used for classroom instruction among teacher educators
- To explore the types of ICT Tools used for classroom instruction.

**Methodology**

- Survey method was adapted for this study.

**Population**

- The investigator selected population among Teacher Educators in Dindigul district.

**Sample**

- The simple random sampling was adopted for this study. 100 teacher educators from colleges of education and university department in Dindigul district.

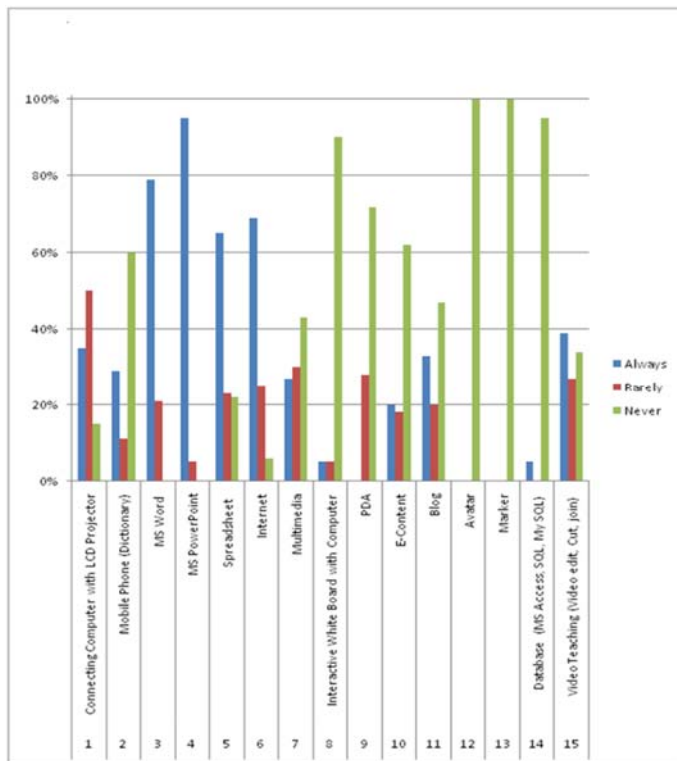
**Tool**

- The investigator has prepared three point scale to measure ICT tools used for classroom instruction among Teacher Educators were selected for present study.

**Data Analysis**

**Table 1.1:** ICT Tools used for Class room instruction

S. No	Name of the Tools using for classroom instruction	Always	Rarely	Never
1	Computer	35%	50%	15%
2	Mobile Phone (Dictionary)	29%	11%	60%
3	MS Word	79%	21%	0%
4	MS PowerPoint	95%	5%	0%
5	Spreadsheet	65%	23%	22%
6	Internet	69%	25%	6%
7	Multimedia	27%	30%	43%
8	Interactive White Board with Computer	5%	5%	90%
9	PDA	0%	28%	72%
10	E-Content	20%	18%	62%
11	Blog	33%	20%	47%
12	Avatar	0%	0%	100%
13	Marker	0%	0%	100%
14	Database (MS Access, SQL, My SQL)	5%	0%	95%
15	Video Teaching (Video edit, Cut, join)	39%	27%	34%



**Fig. 1.1** ICT Tools used for Classroom Instruction

The above figure 1.1 shows that, connecting computer with LCD Projector 35% of teachers used always, 50% rarely used and 15% never used for classroom instruction. The Overhead Projector was used by 29% of teachers always, 11% rarely and 60% never used for classroom instruction. The MS Word was used by 79% always, and 21% rarely for classroom instruction. The MS PowerPoint was used by 95% always, 5% rarely for classroom instruction. The E-Content was used by 65% always, 5% rarely and 22% never used for classroom instruction. Internet was used by 69% always, 25% rarely and 6% never used for classroom instruction. The multimedia was used by 27% always, 30% rarely and 43% never used for classroom instruction. An Interactive White Board with Computer was used by 5% always, 5% rarely used and 90% never used for classroom instruction. The Personal digital Assistant (PDA) was used by 28% rarely and 72% never used for classroom instruction. The wiki was always used by 20% always, 18% rarely used and 62% never used for Classroom Instruction. The blog was used by 33% always, 20% rarely used and 47% never used for classroom instruction. The avatar was never used for Classroom Instruction. Likewise the Marker was never used for classroom instruction. Database was used by (MS Access, SQL, My SQL), 5% always, and 95% never used for classroom instruction. Video Teaching done only 5% always, and 95% never used for classroom instruction.

**Major Findings**

- 95% of the respondents stated that, PowerPoint Presentation used for classroom teaching in Colleges of Education.
- 79% of the respondents stated that, MS word used for classroom teaching in Colleges of Education.
- 69% of the respondents stated that, Internet used for classroom teaching in Colleges of Education.

- 65% of the respondents stated that, spreadsheet used for classroom teaching in Colleges of Education.

### Suggestions

- Teacher Educators should use modern ICT tools such as PDA, Avatar, Marker, Multimedia etc. in colleges of education.
- Teacher Educators should use latest technology i.e beyond the PowerPoint.
- Teacher Educators should have create individual blog for teaching
- Teacher Education institutions should equip interactive whiteboard
- Teacher Education institutions arrange ICT based training for digital immigrant teachers.

### Educational Implications

- ICT-Pedagogy can also help in giving uniform attention to all the students in the prevailing classroom.
- Friendliness and mutual trust of the students can be gained by the teacher through this type of provision of joyful and rewarding learning environment.
- It provides opportunities for peer tutoring to both high and low achievers
- ICT-Pedagogy based learning will make students accountable for their learning and given them a sense of power and ownership in learning outcome.
- The limited intervention of the teacher, at moments of need, can promote learning.
- Any resourceful and committed teacher can administer these ICT tools for Classroom Teaching.
- It limits the amount of written work and students gain more proficiency.

### Conclusion

ICT has undoubtedly become a powerful tool that is breaking the traditional methods of education. ICT based teaching learning process may lead to effectiveness and efficiency of educational system. Now a days, most of the educational institute has ICT facilities in their college itself. They are sensitizing the relevance and importance of ICT in teacher education field. Most of the teacher educators used PowerPoint Presentation (95%), Word Processing (79%), Spreadsheet (65%), Internet (69%) used for classroom instructions. Many latest technological tools available such as PDA, E-content, Avatar, Marker, Multimedia etc., teachers' have to use these tools for pedagogy. All the institution having well equipped ICT Laboratory as per the NCTE norms; but usage of ICT tools among teacher educators very less.

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