

# Professional Development with ICT in Education a Study of ICT Awareness

**Dr. Manisha Saini**

Dept. of Law, J.V. Jain College, Saharanpur, UP, India

## Introduction

Information and communication Technology (ICT) is becoming an integral part of our day to day activity including the areas such as Education, Administration, Communication, Agriculture, Health Care and Good Governance, ICT have an important and significant role in distance mode education, to deliver the instructions. The capabilities of technology provide support to traditional educational programs to meet the needs of individual learners more effectively and take the advantage of growing use of the internet and web based technologies. Studies indicated that, the teachers play a key role in this regard and therefore need good working knowledge, skill and confidence in the use of ICT in the classrooms.

The use of ICT's can make substantial change for education and training mainly in two ways. Firstly, the rich representation of information changes learners perception and understanding of the context. Secondly, the vast distribution and easy access to information can change relationship between educators and student teachers. ICT can also provide powerful support for educational innovations.

## I. What is ICT:

Information and Communication Technology is often used as an extended synonym for information technology. It is more extensive term that stresses the role of unified communications and the integration of telecommunications, computers as well as necessary enterprise, software middleware, storage and audio-visual system, which enable users to access, store, transmit and manipulate information.

According to UNESCO, "ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economical and cultural matters."

Toomey defined the term ICT as "relates to those technologies that are used for accessing, gathering, manipulating and presenting, communicating information Thus ICT = IT + other media. It has opened new avenues, like online learning, E-learning, Virtual university, E-coaching, E-education and E-journal etc.

## II. Education and ICT-

The 21st century is going to be knowledge based societies. For this information has to be converted into knowledge this can happen only when information is available for application in diverse fields and there should be opportunities to do so. According to Futurist Alvin Toffler, "The illiterate of the 21st Century will not be those who cannot read and write but those who cannot learn, unlearn, and relearn," Use of ICT in education develops higher order skills such as collaborating across time and place and solving complex real world problems. ICT can be used as a tool in process of education in the following ways.

- Informative Tool – It provides vast amount of data.
- Situating Tool – It creates situations, which the students experiences in real life.
- Constructive Tool – To manipulate the data & generate analysis.

- Communicative Tool–It can be used to remove communication barriers.

## III. Why we Need ICT ?

The face of the class rooms is changing ICT is not only an essential tool for teacher in their day to day work but it also offers them opportunities for their own professional development. ICT brings more rich materials in the classrooms and libraries for the teachers and students. It has broken the monotony and provided variety in the teaching – learning situation The ICT can be used both at school and higher education levels in the following areas.

### 1. Teaching

ICT can be used for various teaching, learning activities and content in different subjects. Some examples as –

- Using power point create presentation of lessons on different topics.
- Using Micro soft excel create time table, class list, grade book, time live, work book and chart
- Using Microsoft publishing create student/teacher publications like news letter, poster brochure etc.
- Create e-mail account, website etc.

### 2. Remedial Teaching

The Remedial Teaching can be done by the teacher if some common mistake are identified. It may not be possible to organize Remedial Programme for individual students. At this point the ICT can be used for giving individual Remedial Programme . It may be online or offline. The instructional material if designed specifically for meeting the individual needs of students and uploaded on the website and then the ICT can be used for providing Remedial Teaching programme.

### 3. Developing Instructional Material

The book reading is not very enjoyable and does not help students in understanding the concepts and retaining the information. There are many teachers who are well known for the specific subject. Their lectures should be digitalized and made available instruction in the class room. These lectures can be uploaded on any website and students and teachers can access any lecture they like. Another form of digitalized lectures is e-content. This has lots of potentiality to bring quality in education.

### 4. Evaluation

The ICT can be made use in the evaluation. One such attempt has been made by Sansanwal and Dahiya (2006) who developed Computer Based Text in Research Methodology and Statistics. This Test can be used by individual student, to evaluate his learning. Not only the student even the teachers can also use it to access their own understanding of the subject such software can be used for internal assessment. Thus ICT can be used to improve the quality of pre as well as in service teachers.

## IV. Importance of ICT for Teacher/Student

- It acts as the gate way to the world of information enables

teachers to be updated.

- For professional development and awareness of innovative trends in instructional methodologies, evaluation mechanism etc.
- For effective implementation of certain student centric methodologies such as project based learning.
- It enables better and swifter communication presentations of ideas are more effective and relevant.
- Student – teachers are transformed into self learners.
- ICT creates awareness of recent methodologies.

## V. Conclusion

Thus Information and Communication Technology (ICT) is a buzzword in the 21st century due to revolution in ICT. This revolution is considered as a super supplier of the skilled manpower to the globe. The ICT has arrived in a big way, there is no escape from it. ICT in education guarantee a long exciting journey ahead to brush up the level of education in colleges and universities all over the World. It would enable development of collaborative skill as well as knowledge creation skill. It can improve the quality of learning teaching and thus contribute to the socio-economic development. So, it shows that any teacher interested in the field of ICT, having facilities can make a useful contribution in educating our children in latest back ground of knowledge.

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