Role of ICT in the enhancement of Teaching and Learning process

Pooja Jain

Assistant Professor

Jain Vishva Bharati Institute

Ladnun – 341306, Rajasthan

Introduction

ICT stands for "information and communication technologies". It has become important in all aspects of life. The use of ICT in teaching-learning process is a relatively new technique and it plays important role in the field of education and researchers point of view. ICT is the latest trend which helps in improving the efficiency in the educational process. **According to a United Nations report (1999)** ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centres, commercial information providers, network-based information services, and other related information and communication activities. There are various kinds of ICT products available related to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system, audiocassettes and CD ROMs etc have been used in education for different purposes. ICT can be defined as "anything which allows us to get information, to communicate with each other, or to have an effect on the environment using electronic or digital equipment" **(Siraj-Blatchford & Siraj-Blatchford, 2003, p. 4)**. ICT helps to improve the memory power, motivates and the new approaches to teaching and learning.

Meaning of ICT

ICT refers to the technology or system which allows to store, process, retrieve, print, update and transmission of information. Example: computer, digital TV, laptop, internet, mobile, printer etc.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories

International Journal in IT and Engineering

http://www.ijmr.net.in **email id- irjmss@gmail.com   Page 6**

Components of any ICT system

Any ICT system consists of six components:

1. **Hardware**

   This is the physical component of the system which can be touched. Hardware includes input devices such as keyboards, mouse, scanner, etc., storage includes such as memory, hard drive, etc., the processor and the output devices includes such as screen, printer, plotter, etc. Also includes communication devices needed to send data across networks.

2. **Software**

   It is the set of the programs.

3. **People**

   People are required to input the data to the ICT system and also to make judgements and decisions from the output provided by the system.

4. **Data**

   It is the raw material which is to be supplied to the system and then it gets processed and provides the output.

5. **Procedures**

   It tells what needs to be done and also includes the passing of data or information between different people.

6. **Information**

   The processed data is information and is the output from any IT system.

Advantages of ICT for teaching by Teachers

ICT helps in various ways to enhance teaching and learning process as follows:

1. Exposure to ICT, boost the confidence and enthusiasm.
2. It provides the facility to share the resources, become expert and can suggest others.
3. Provides with flexibility of time to learn anywhere and anytime.
4. Easy to plan, prepare the lessons and design the material.
5. Keep updated with the information anytime and anywhere.
6. Lessons prepared by the teachers can be used outside the classroom.
7. Provides the facilities to teach a whole class or part of a class, assisted by technology as appropriate.
8. Access to individualized curriculum pathways, managed by technology.

9. Access to individualized diagnostic testing and assessment of progress, managed by technology.

Advantages of ICT for learning by students

1. **Motivational tool**

    Internet acts as a motivational tool for the students and thus creates interest in learning.

2. **Communication becomes faster**

    Across the different geographical areas, internet is a medium of communication which allows students to join various projects. This type of learning was not possible before.

3. **Facilitates corporate learning**

    Encourages the students to participate in discussions and make the classroom discussions more interesting.

4. **Useful for research**

    Research is very important part. Repositories of resources are available on the internet and students can get access to various resources at anytime and anywhere.

5. **Writing skills**

    If students want to publish their articles on the internet, they require hypertext skills. This skill helps students to develop writing skills.

Technology oriented tools used for the enhancement of teaching and learning process in education

There are various tools which are very useful for the teachers:

1. **Google drive**

    Recently its very popular. It's a very useful tool which allows users to store approx.. 15GB free space if the user is having the account. It provides the facilities to store files, create document, presentations, excel sheet, draw and create forms onine and store in the drive. Large files can be send through the drive.

2. **Dropbox**

    The cloud based another a very good place for storage is Dropbox. It helps to save, store and share docs and pdf files easily.

3. **Google in Education**

    The Google created platform is Google in Education which provides the various tools for education purpose specially for teachers and students.

4. **Socrative**

It is a smart educational system which allows teachers to engage their students into learning activities through smartphones, laptops and tablets. It has various nice features such as visualization, instant result aggregation and real time questioning which makes the teachers to improve their student abilities.

5. **Edmodo**

It's a way to connect with the entire class where content can be shared, post necessary notices and assign the homework through this simple system. It has more than 15 million users which includes teachers, students and their parents. This way it provides the educational resources at one place.

6. **Evernote**

It can be used on almost all web based and mobile devices which is absolutely free. It provides facility to make necessary notes and bookmark useful webpages.

7. **Youtube video editor**

Youtube video editor is a great tool which provides the facility to create and edit videos and helps to make the teaching more effective and interesting in the classroom. Since its easy to use, its used by the teachers and students around the world.

8. **WeVideo**

It is also another useful tool which allows to create, edit and share the videos on all types of devices such as PCs, laptops, mobile and tabs.

9. **Flipboard**

It provides the facilities to save favourite stories which we can read later in the form of magazine which looks more attractive to students.

10. **Diigo**

It is a website for social bookmarking which allows to tag and bookmark webpages which are important. We can also highlight certain areas and add sticky notes.

Glimpses of Traditional and Emerging Pedagogy Enabled by ICTs

Victoria L.Tinio have mentioned the following sources ICT in Education :

Traditional pedagogy	Emerging pedagogy enabled by ICTs
⏃ **Activities prescribed by teacher**	⏃ **Activities determined by learners**
⏃ **Individual**	⏃ **Working in teams**
⏃ **Apply known solution to problems**	⏃ **Find new solutions to problems**
⏃ **No link between theory and practice**	⏃ **Integrating theory and practice**
⏃ **Teacher directed**	⏃ **Student directed**
⏃ **Summative**	⏃ **Diagnostic**

Conclusion

ICT in education is very useful for the teachers and learners. In 21st century every teacher and student should be aware of ICT tools to use so that they can be more innovative and creative. Media should be mixed for better teaching and learning. Selecting the medium of delivery include criteria such as the reach of the medium, its availability, the ease with which it can be used by the individual learner or the counsellor at a distant location, and cost effectiveness. The impact of the ICT on each sector of the life across the past two-three decades has been enormous. The way these fields act today is different as compare to their pasts. The quality education is basic need of the society. There are number of effective teaching & learning methodologies in practice. Technology is the most effective way to increase the student's knowledge and teachers' pedagogy. Thus ICT plays a major role in the enhancement of teaching and learning.

References

Brosnan, T. (2001). Teaching Using ICT. University of London: Institute of Education.

Innovative Methods of Teaching, Dr. Damodharan V. S. ACCA, AICWA and Mr. Rengarajan.V AICWA

Kok, A. (2007). ICT Integration into Classrooms: Unpublished literature review

Pedro et.al. (2004). Technology in Schools: Education, ICT and the Knowledge Society.

Rashid, M (1998). Educational Technology: National Book Foundation; Islamabad.

Siraj-Blatchford, I., & Siraj-Blatchford, J. (2003). More than computers: Information and communication technology in the early years. London: The British Association for Early Childhood Education.

Siraj-Blatchford, J., & Siraj-Blatchford, I. (2002). Developmentally appropriate technology in early childhood: 'video conferencing'. Contemporary Issues in Early Childhood: Technology Special Issue, 3 (2), 216-225.

Siraj-Blatchford, J., & Whitebread, D. (2003). Supporting information and communications technology in the early years. Berkshire: Open University Press.

UNESCO-IBE. 1995. Teacher Training and Multiculturalism: National Studies. IBE, Geneva.