EFFECTIVE USE OF ICT IN TEACHING AND LEARNING PROCESS

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Abstract : *Information and Communications Technology (ICT) has an important role in the world since we are now in the information age era. ICT means that implies the technology which consist of electronic devices and associated human interactive material that enables the user to employ them for a wide range of teaching learning process in addition to personal use. ICT has changed the teaching and learning process especially in the education spectrum. The present article is an attempt to study the effective use of ICT in teaching and learning process and its applicability in teaching and learning process. In wider sense, ICT has changed the traditional methods of teaching and learning process and introduced new methods which are effective and essential for learners. ICT for education refers to the development of information and communications technology specifically for teaching/learning purposes. Today Education has become student centered due to ICT. In coming days the collaboration of ICT with teaching and learning process will be stronger.*

Keywords- *Information and Communication technology, Teaching and learning process, Education, Effective use.*

Introduction :

ICT is Information and communication technologies means that implies the technology which consist of electronic devices and associated human interactive material that enables the user to employ them for a wide range of teaching learning process in addition to personal use. ICT is generally defined as technology functioning to support the process of conveying information and communication. According to a United Nations report (1999) that " 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." ICT have become commonplace entities in all aspects of life. 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. ICT plays very important role in the development of knowledge, since we are now in the information age era.ICT cannot be separated with our daily needs yet it become an integral part of everyday life for many people. According to UNESCO (2002), " Information and Communication Technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology."

The 21st Century is the century of technology. ICT has changed the teaching and learning process especially in the education spectrum . Information and communication Technologies are potentially powerful tool for extending educational opportunities The use of ICT in education add value in teaching and learning, by enhancing the effectiveness of learning, or by adding a dimension to learning that was not previously available. ICT may also be a significant motivational factor in students' learning, and can support students' engagement with collaborative learning. Of modern global achievements which have rendered in immense development and dynamism in the area of global education is the expansion of ICT which accounts for all-out efforts by humans while optimally using of the elements of time, place and facilities within the learning and teaching process. Looking into instructional and educational processes, particularly learning-teaching process, there are gross differences as regards the quality of information transference in the light of modern technologies, which it is impossible to neglect it from the standing of teaching and learning.

Teaching And Learning Process : Education :

Education is a process of internal growth and development. Education is a never ending process. Today Education has become student centered due to ICT. Information and communication Technologies are potentially powerful tool for extending educational opportunities.ICT plays very important role in the development of knowledge. ICT has changed the teaching and learning process. There is a believe that ICT can empower teaching and learning process. Teaching and learning are two basic aspects of education. Teaching is a study of general principles and understanding of all human experiences. Edmund Amidon defined teaching as "Teaching is an interactive process primarily involving class room talk which takes place between teacher and pupil and occurs during certain definable activity. Learning means the process of acquiring knowledge and skills." Teaching refers to the process of imparting knowledge and skills from teacher to learner. It is encompasses the activities of educating or instructing. It is an experience that has a formative effect on the mind, character or physical ability of an individual .Today ICT is changing, teaching in various ways. In order to use technology effectively, educators need to be trained in using technology and they need to develop a good understanding of it. As Geer, R& Sweeney pointed out that " Technology is used to enhance learning; therefore it is important for educators to be comfortable using it to ensure that students get the full advantages of educational technology." In the words of Y Punie, D Zmnbauer, and M Cabrara, " Learning is the act of acquiring new or modifying   and reinforcing existing knowledge, behaviors, skills and values."

We are living in the evolving digital world. ICT has an impact on every aspect of our lives especially in learning process. There is a wide spread belief that ICTs have an important role to play in changing and modernizing educational system and the way of teaching and learning method. There is a common belief that ICTs have plays the vital role in contributions to changes in teaching practices, school change and innovations, and community services. One of the most significant contributions of ICT in teaching and learning is easy excess to learning.

Effective Use of ICT :

In this technological era, the use of information communication technology influencing the teaching and learning habits of teachers as well as students to a great extent. India is in the preliminary stages in the use and integrating ICT in teaching learning process in educational institutions like the other developing countries in the world. The objectives of the study mainly deals with the use of ICT to make teaching learning process effective and the factors influencing use of ICT in teaching learning process in education scenerio. Of other effective uses of ICT with regards to its role in the learning-teaching process, one can refer to the following cases:

1. Enhance the perspective of problem solution skills: during participation in curricular activities, learners arrive at numerous obstacles ,at that point ICT could provide unique opportunities for the creation of problem solutions to instructors while preparing and outlining non-liner, interactive and information situations.

2. Improve the quality of decision making : The ICT milleu provides the learner with suitable options from the perspective of audio and vision content as well as animation, color, time of learning, choosing complementary sources of learning and interaction with other classmates within the learning and teaching process. Thus, the learner will be able to develop sense of continuous decision making.

3. Developing sense of curiosity and creativity among instructors: In order to develop the sense of curiosity among students, they should be familiarized with new situations; hence ICT allows this and serves as a learning facilitator for the issue of education.

4. ICT plays an effective role through increasing critical thinking among learners and cooperation and participation in learning, ICT leads to an expansion of students and instructors' thinking skills; thus, ICT, via teaching social skills, brings about conditions wherein the instructor shares his/her own information with others through social communications e.g. emails, Bluetooth, Viber, What's App, SMSs and modern social networks and thus reinforces social communication anytime and anywhere based on the learner's responsibilities.

5. It appears that ICT provides the learner various options in terms of choosing content, time of study and learning, choosing complementary source and interaction with classmates. Hence, the learner needs to have the power to decide independently and to have continuous choices. In the ICT setting, students can strengthen their own aesthetics sense via participating in producing and representing multimedia, evaluating them and manipulating and simulation.

6. The effective use of ICT is that it considered to be an impressive tool for learners and teachers: it enables learners to become active learners at the class rather than a reactive observant; offers opportunities for different learning styles; enables learners to concentrate over their on activities and overcome physical pressures; increases learners' independence; brings about a means and promotes the speed of learners' progress; facilitates social relations and interactions and places learners in a wider field.

7. ICT is used for the development of infrastructure in education. It eliminating centers and educational classes needs from the view of equipment to hardware and software facilities related with teaching –learning process which support in the process of incorporating daily lessons by using ICT facilities, developing strategies and guides for the expansion of ICT, expanding and developing advanced video conferences, E-

learning, mobile learning ,etc helps in engaging of mind and expand the thinking of the learners.

8. ICT propogates Critical Thinking. It is argue that students do not learn from teachers or from technologies. Rather, students learn from thinking–thinking about what they are doing or what they did, thinking about what they believe, thinking about what others have done and believe, thinking about the thinking processes they use–just thinking and reasoning. Thinking mediates learning. It would be to use analogies to convey and understand new ideas. That is, understanding a new idea is best accomplished by comparing and contrasting reasoning required to structurally map the attributes of one or more idea to others–that is, to draw an analogy by using this technologies.

9. Using ICT technologies as tools to learn with entails learners representing what they know–that is, teaching the computer. To do so, learners must express what they know. Using different tools requires learners to express what they know in different ways. Technologies can be used to help learners express themselves in writing. Learners can express themselves using a variety of tools, such as databases, spreadsheets, and expert systems, each tool requiring different forms of expression. Technologies can support verbal and visual expressions as well. Hence, it is effectively use for expression of idea, thought or concept.

10. ICT helps to knows Continuous Feedback of work or task. There are countless studies that illustrate the benefit of using technology-based continuous feedback methods to improve studentengagement. At Utah State University, for example, researchers conducted a study to examine the use of frequent, anonymous student course surveys as a tool in supporting continuous quality improvement (CQI) principles in online instruction. The study used a qualitative, multiple-case design involving four separate online courses. Findings suggested that instructors used student feedback to make course changes that alleviated technical difficulties, added and clarified content, and contributed to future course changes. Students and instructors responded positively to the opportunity to give and receive anonymous feedback and felt that it helped improve the course .The study also found that students like to be asked to help improve their learning experience, as long as the instructor listens and responds to their feedback.

11. ICT helps in using Creative skills and Contribution aspects effectively**.** Countless programs and platforms now allow us to create and share material in a way that was not possible before the rise of technology. Blogs, for example, are a great way to develop creative thinking and writing in students. They provide freedom to students to post whatever they want and comment upon or share each other's material. They can openly write on topics that intrigue them and give vent to their ideas without having to worry about grading or grammatical errors. Similarly, games have proven to be one of the best ways of promoting co-operation and creativity. Educational games keep students engaged with their study, ignite the interactive and imaginative element in their thinking and mold it towards creativity.

12. The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research. A great deal of research has proven the benefits to the quality of education. ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change.

13. One of the most vital contributions of ICT in the field of education is- Easy Access to Learning. With the help of ICT, students can now browse through e-books, sample examination papers, previous year papers etc. and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world.

14. The adoption and use of ICTs in education have a positive impact on teaching, learning, and research. ICT can affect the delivery of education and enable wider access to the same. In addition, it will increase flexibility so that learners can access the education regardless of time and geographical barriers.

15. The use of ICT in educational settings, by itself acts as a catalyst for change in this domain. ICTs by their very nature are tools that encourage and support independent learning. Students using ICTs for learning purposes become immersed in the process of learning and as more and more students use computers as information sources and cognitive tools. The influence of the technology on supporting how students learn will continue to increase.

Regardless, Today's learners now enjoy easier, more efficient access to information; opportunities for extended and mobile learning; the ability to give and receive immediate feedback; and greater motivation to learn and engage. We now have programs and platforms that can transform learners into globally active citizens, opening up countless avenues for communication and impact. Thousands of educational apps have been designed to enhance interest and participation. Course management systems and learning analytics have streamlined the education process and allowed for quality online delivery.

Conclusion :

Information and Communication Technology is playing a significant role in education. ICT can make teaching and learning process more effective and easier. Teaching and learning has become student centered due to ICT. Students are performing better using ICT tools rather than using traditional methods. In this 21st century an ability to work with ICT is becoming necessary in every field particularly in Education.ICT and education is like two sides of same coin. The fusion of ICT and education has become ICT education. It can help students to learn and teachers to teach more effectively. It is predicted that there will be many benefits for both the learner and the teacher. It is observed that the flexibilization time-space accounted for by the integration of ICT into teaching and learning processes contributes to increase the interaction and reception of information. Such possibilities suggest changes in the communication models and the teaching and learning methods used by teachers, giving way to new scenarios which favour both individual and collaborative learning. Miles Berry stated that "ICT can do much to make learning more active, to support pupil's construction of meaning, to allow pupils to pursue goals of their own choosing, to engage with real problems and to cooperate beyond the limits of the classroom."

ICT addresses problem solution through subjective thinking. In fact, ICT as an interactive tool makes learning and teaching process stronger. Of other benefits of ICT, one can refer to eliminating teachers' traditional authority as an absolute source of knowledge and information and via creating education opportunities and learning chances for all, it has led to increase and promotion of abilities and access, making learning and teaching issues be of

quality and diversifying learning conditions in teaching and learning conditions. Today, in all subjects of basic and humanities sciences, one can fortunately make use of ICT's advanced tools in completing the ICT's nature in discussion of the quality and quantity of learning and teaching as well as learning professional and value based issues at schools and homes anytime anywhere via facilitating access for all to learning opportunities at the expense of eliminating limitations arising from gender, race, social and economic success of learners within the learning process. Shariatmadari rightly commented that "ICT plays an effective role via creating motives, deepening and expanding learning and sustaining learning as well as removing pervasive boredom and creating subjective skills for accounting." ICT usage has revolutionized all the fields, the innovations that ICT has brought in action in teaching-learning process include: quick access to information, online student registration, reduce burden of keeping hardcopy all the time and networking with the resourceful persons as well as e-learning. In the field of education, all the above mentioned factors enhanced the chances of excellent integration of ICT in teaching- learning process.

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