Role of ICT in Making Teaching and Learning Effective in Modern Education

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Abstract— **The author presented his study and analyzes the level of integration of the information and communication technology (ICT) in the modern education. Hence, to execute this work, author try to accomplish a surveys between teachers/educators and learners/students. Nevertheless, the perceptions of the administrative personnel were neglected as due to a preliminary study, no proper feedbacks were obtained from them concerning the topic of study. The findings indicated that the teachers/educators and learners/students do make heavy use of ICT in their daily teaching and learning process, which is a necessity in this fast changing world whereby ICT is taking over all fields. The use of ICT in education adds value to teaching and learning, by enhancing the effectiveness of learning. It added a dimension to learning that was not previously available. After the inception of ICT in schools, students found learning in a technology enhanced environment more stimulating and engaging than in a traditional classroom environment. Looking at the present scenario of education, many changes have taken place especially in the teaching-learning to assessment and evaluation. Information and communication technologies are extremely influencing every discipline including Education. It is affecting every aspect of education from teaching-learning to assessment and evaluation. It improves the effectiveness of education. Therefore, integrating ICT in the education field will be very advantageous for the modern generation of students.**

Index Terms— **Information and communication technology (ICT), Modern Education, Technologies, Teaching Aids.**

I. INTRODUCTION

ICT has a pivotal role to play to address the issue of quality content and quality of teachers. Globally role of ICT has been acknowledged and appreciated. It's successful once teachers have appreciated. MHRD has already emphasized on the importance of ICT in education and there are some schemes already floated by the government where companies like Smart class have made a huge contribution. It improves the effectiveness of education. It aids literacy movements. It enhances scope of education by facilitating mobile learning and inclusive education. It facilitates research and scholarly communication. Impact of ICT and its potential for the education field is manifold. A judicious use of ICT technologies together with new functions and roles of education personnel can bring about more efficient and effective teaching learning-process."

The main concern here is to bridge the differences amongst the students, parents and teachers leading to an effective interaction and a transparency between the three. An equal importance should also be given to promote the culture of learning at school and to support schools in sharing experience and information with others.

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II. NEED & REQUIREMENT OF ICT IN MODERN EDUCATION

The Information and Communication technology to be precise has become a driving force behind technological growth and a developmental tool as well in each and every field of modern era. ICT is an extended term for Information technology which is a technological source to make information available at the right time, right place in the right form to the right user. Earlier, one had to wait for the newspapers to get the information across the world. Now with the smarter technology, information can be accessed from anywhere using smart phones and gadgets. All this is made possible with the help of Information and Communication Technology

Information and communication technology can be used as a school communication tool to improve student learning and better teaching techniques. With the advancement of technology in education, schools adopt school communication software to transmit, store, share or exchange information. In this modern technological era, ICT in education has compelled many schools to get accustomed to smart technology. This school communication software uses computers, the internet, and multimedia as the medium of communication.
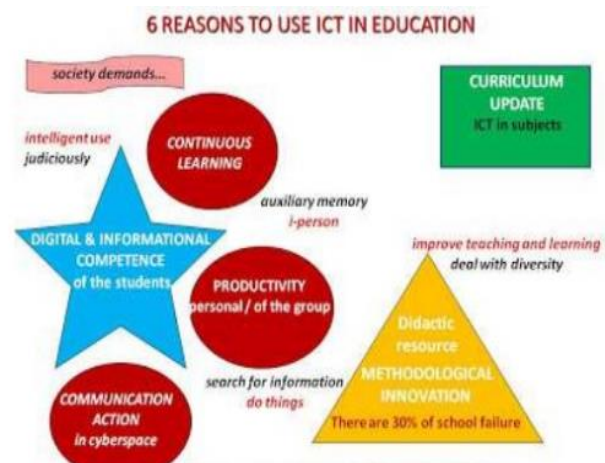

Figure:1   Reasons to use ICT in modern Education

Following are the importance of ICT in modern education system:

Computer-based learning: Computer-based learning is one of the modules of school communication tool that helps students to enhance their learning skills through computer aided education. It imparts computer knowledge in students and enables them to obtain large amounts of information from various websites. After two decades of introducing computers to schools, education has been revolutionized ever since then.

It reduces time spent on mechanical tasks such as rewriting, producing graphs and increases the scope of searching. It not only helps in finding information but also in organizing information making it easier to share with others.

Internet: Internet tools like Email, social networks, newsgroups and video transmission have connected the world like never before. Students can now communicate using emails and social networking groups that provide knowledge based information. Distance learning, online learning is also enabled through the internet. Students can learn online and also talk to experts online. Notes, readings, tutorials, assignments can be received by students from anywhere. The Internet provides major information in texts, audios, videos and graphics which can be accessed by the individual. Online learning allows students to interact with each other and faculty to interact with students.

Classroom Learning: With the introduction of ICT in education, classroom learning is one attribute that makes learning experiential and experimental to students. Students can listen to the instructor or teacher, receive visual cues through PowerPoint images, handouts or whiteboard lists and participate actively. This helps in immediate interaction and students have opportunities to ask questions and participate in live discussions. This school communication software module further benefits in building and maintaining personal and professional relationships as classrooms offer greater personal contact with other students and teachers.

Video conferencing: This is yet another medium of communication wherein students can communicate with other students or instructors online. It enables students to become active participants in their own learning. Video Conferencing is a powerful communication tool that has the potential to change the way we deliver information to students. It is just one of the today's integrative technologies that empower students to prepare for a better future.

Here are few characteristics that make ICT in education a prominent school communication tool.

III. ROLE OF ICT IN MODERN EDUCATION

Nowadays the role of Information and Communication Technology (ICT), especially internet in the education sector plays an important role, especially in the process of empowering the technology into the educational activities. Education sector can be the most effective sector to anticipate and eliminate the negative impact of ICT. Technology (internet) in another side can be the most effective way to increase the student's knowledge.
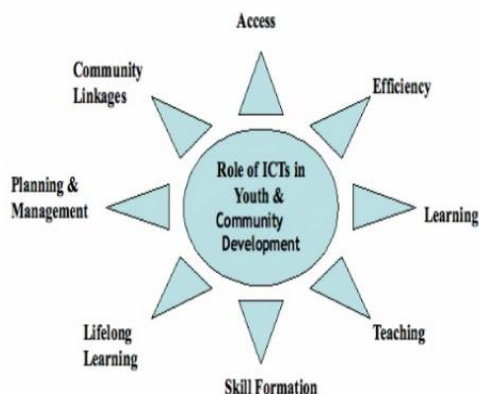

Figure:2 Role of ICT in various fields

The main purpose of the Strategy for Information and Communication Technology Implementation in Education is to provide the prospects and trends of integrating information and communication technology (ICT) into the general educational activities.

The followings are the aim and objectives of ICT implementation in modern education:

1. To implement the principle of life-long learning / teaching.
2. To increase a variety of educational services and medium / method.
3. To promote equal opportunities to obtain modern education and information.
4. To develop a system of collecting and disseminating educational information.
5. To promote technology literacy of all citizens, especially for students.
6. To develop distance education with national contents.
7. To promote the culture of learning at school (development of learning skills, expansion of optional education, open source of education, etc.)
8. To support schools in sharing experience and information with others.

IV. BENEFITS OF ICT IN TEACHING AND LEARNING

As a student, businessman or civilian you have to admit that the importance of ICT is a must for our daily life. Since science has developed this modern era of technology you can resist yourself to get the benefits. If you want to get benefited then you have to use it perfectly.
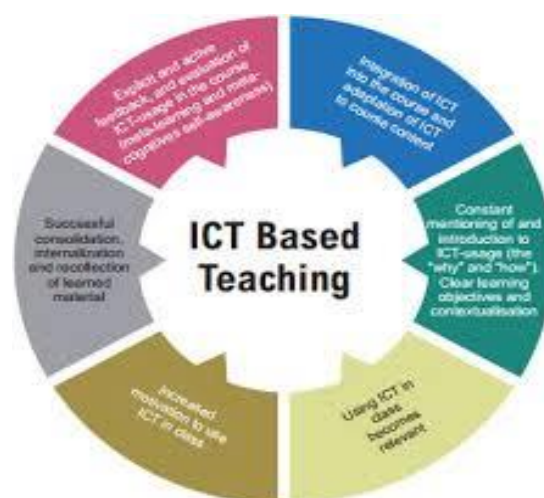

Figure:3 ICT in Teaching and Learning

My suggestion to you will be that don't use it to harm others. Use it to developing yourself and your country. If you make your own way out then your country and society will also get a great way out. So, stay with technology.

V.CONCLUSION

A world without ICT means we do not have any information and we don't know about the events that are occurring. Random experiments show that people are now engaging in ICT like it's a part of life. Uses of ICT are increasing day by day everywhere. We can't even think of a day without ICT. People are using ICT for various purposes.

From the newspaper to the business call it's saving our valuable time. From modern educational books to online

courses all are beneficial and very much needed a source. We are getting these services only for the developed ICT sector. So, it's very much true that we can't think about our days without ICT. It is as useful in our daily life as we need a healthy environment to survive.

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