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ICT IN EDUCATION AND ITS CHALLENGES

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ICT in Education and its Challenges

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Abstract – 21st century in which we are living is technology era. A single aspect of life is not untouched from technological effect. In day-to-day life, we use a lot of technical equipments such as internet, mobile phones, scanners, photocopiers, multimedia software etc. Use of technology in education plays a prominent role to make teaching & learning more effective. After studied a lot of literature regarding use of Information Communication Technology (ICT) in education; visualized that proper implementation of ICTs offers basket of benefits to teachers, students and researchers in teaching & learning in various field viz. active participation, creative & critical thinking, independent learning, improve work performance, motivation to learn are some of them. Further ICTs helps in gaining better insight into a new problem and bring better clarity about dimensions of new topics. ICT is a fruitful tool to make education more interesting; provides a new way for teaching & learning; brings quality in knowledge; enhances student's learning ability and prepare them for a globally competitive workforce. The present paper represents the role of ICT in teaching & learning and focuses various challenges in implementing ICT.

Keywords: Education, ICT, Implementation

INTRODUCTION

Education is the process of facilitating learning or the acquisition of knowledge, skills, values, beliefs and habits. Now-a-days various technologies are using in all fields. India is a developing country that's why many technologies are emerging. So, integration of technologies in education is considered better for teaching & learning too. Information Communication Technology enables us to process, store, retrieve and disseminate valuable information in text, sound and video form. ICTs are simply technologies arising from scientific and technological progress in computer, science, electronics and telecommunications. Further, ICTs help teachers & learners in understanding of new communication technologies and strategies for exchanging information, which promote them to share and challenge their own and other people's ideas and solutions with a global audience. ICT is an umbrella term that covers many communication devices or applications like Television, Radio, Email, Internet, Video conferencing, Online communication tools etc. and includes the range of hardware, software devices, programs such as personal computers, scanners, database, microphones and spreadsheet programs. It is similar to Information Technology (IT), modern information technologies has created a "Global Village". Technical education play prominent role in Human Resource Development of country by improving quality of life, productivity, skill manpower, standard of living etc. After conducting a survey in African countries, it was visualized that ICT helps learners in many ways i.e. better understanding of

topics, reach to quality learning material, interaction with experts & global resources and learning with easier way (2012).

REVIEW OF LITERATURE

Dawes (2001); analyzed the effectiveness of ICT and suggested that ICT has potential to make communication more effective, clear, understandable and interesting.

Yusuf (2005); identified that ICT affected the education field very much and strengths teaching, learning and research.

Lefebvre, Deaudelin, D., & Loiselle, J. (2006); modern technology equipments helps in improving teaching and learning.

Al-Ansari (2006); due to emergence of ICTs research got various benefits and improved the quality of education.

Al-Alwani (2005); Information Communication Technologies encourage teachers and students to use new technologies and increase the awareness regarding new communication technologies.

Bingimlas (2009); identified major hindrance to implement ICT are lack of competence, lack of access to resource and lack of confidence in teachers and students.

Thabani Mdlongwa (2012); found that ICT play an effective role in learning and teaching, these technologies became learner's very unique with various features like independent learning, good knowledge, skill, command over communication technologies etc.

Patel (2015); found that internet has become a great source to collect different type of information for any topic like travelling, shopping, art, culture, current affairs/general knowledge, weather, sports, statistical information, government reports, employment and education. This information can be collected anytime, anywhere with a minimum cost.

Syed-Noor-UI-Amin; observed that continuous use of ICTs could be very fruitful for teachers, students and researchers, enhance their capability if properly implemented these techniques. Thus, ICTs has positive impact on education sector.

OBJECTIVES OF STUDY

Objectives of this present study are:

- To identify the role of ICTs in education.
- To identify various challenges in implementation of ICTs.

RESEARCH METHODOLOGY

In this study, Secondary data were used from various published and unpublished research work, Journals, Previous reports, Websites, Articles etc.

BENEFITS OF ICT

ICT has many benefits, it is clear from various studies, on the behalf of many previous studies; benefits of ICT are as follows:

1. **Increase in Motivation:** Information Communication Technologies motivates learners to learn, because these technologies make study more interesting and easier. Students can easily understand the concepts and new topics. ICTs consists videos, Television, Multimedia computer software that includes text, sound & colorful moving images which makes study more interesting.
2. **Increase in Participation:** with the help of ICTs teachers and students take initiative for learning.
3. **Helps in Discovering New Ideas and Improves Knowledge:** after understanding the preliminary concept of any new topics, they will be more curious to know new things about that topic with the help of modern ICTs. Then learners will become more creative, but

with the traditional teaching methods; learners have only bookish knowledge.

4. **24x7 hours Accessibility:** teachers and learners can easily access knowledge 24x7 hours. Learners can browse through e-books, previous year papers, sample examination papers etc. and can easily communicate with experts, professionals and researchers.
5. **Increase Standard of Work and Productivity:** with the help of modern communication technologies, learners can do easily their work in more effective way.
6. **Independent Learning and Make Distance Learning Easier:** learner can learn without any help of mentor & experts, because ICT are very easy to understand. ICTs makes distance learning easier because learner can get relevant study material anytime and anywhere.
7. **Increase Collaboration:** integration and cooperation among students, initiate students to do their work with more responsibility. Students can easily communicate with experts and co-learners from different field when they feel problem in any type of topic due to internet access.

CHALLENGES

There are a lot of challenges regarding implementation of ICT in education, these are as follows:

Teacher's Perspective: many barriers are there which demotivates teachers to integrate ICT in education such as:

1. **Lack of Confidence:** teachers are doubted to this fact that they will teach students properly or not. This is the major barrier which loses the confidence of teachers to accept new technologies.
2. **Lack of Teacher Competence:** teachers are not fully trained and they don't have enough knowledge to teach students about these technologies, some teachers are not capable to teach. So it may be the hindrance in promoting use of ICTs in teaching.
3. **Resistance to Change & Negative Attitude:** teachers are happy with traditional teaching method and they don't want any change, it's the normal human mind that they resist to change.

Educational Institution's Perspective: Educational intuitions also feel some problems to accept ICT in education such as:

1. **Lack of Time:** ICT needs very much time to communicate, but learners can spend little time in schools and colleges. Gomes (2005); found the main reason of not using the ICTs in education that education intuitions had not sufficient time to complete their task and plan with ICTs.
2. **Lack of Effective Training:** education institutions can't afford the training cost of teachers due to high cost of experts and professionals (trainers), so these intuitions runs with traditional modes of teaching.
3. **Lack of Accessibility:** its mean that lack of adequate material and resources; generally intuitions have limited PCs and software. Topracki (2006); identified the major reason I.e. intuitions has less number of computers, slowness ICT system, less number of education software. Pelgrum (2001); analyzed four main barriers such as insufficient computers, insufficient peripherals, insufficient software, insufficient internet access.
4. **Lack of Technical Support:** this creates problem in smooth functioning of education system. Sicilia (2005); found that technical resistance like waiting for website to open, failing to connect to internet, printers not printing etc.

In Kenya, a study found twelve majors hindrance to integrate ICTs in education at school level:

1. Lack of qualified teachers to teach ICTs in schools
2. Lack of computers
3. Lack of electricity
4. Computers are still expensive
5. Broken down of computers
6. Burglary
7. Fear of administration
8. Fear by teacher to resist to changes
9. Lack of internet or slow connectivity
10. Obsolete computers

11. Increased moral degradation
12. Lack of initiate by community leader.

CONCLUSION & RECOMMENDATIONS

After studied, review of several literatures it made clear that, No doubt ICT is a fruitful tool to make teaching & learning more effective, enhance skill, motivate learner to discover new ideas etc. It has a great potential to promote learners for lifelong learning and prepare for globally competitive workforce in future. ICT can add value in teaching, learning and research by improving the effectiveness of learning. At last, it is recommended that both teachers and students should initiate use of ICT in education properly. Lack of resources (i.e. Computers, software, technical support, accessibility, qualified teachers (to teach ICT) and electricity are major challenges to integrate ICT in education, so, administration of institution should take care of these aspects.

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