Use of Technology in Education

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Abstract: *This paper looks at the role of technology in education especially that of higher education. The paper emphasizes more on computer technology because of its availability and these are more effective way of communication. The main objective of the paper is to discuss the importance of TECHNOLOGY in the higher education and their implication to the world of work .As the world has become more competitive, to sustain in any field of work knowledge of TECHNOLOGY is very much essential.Technology has brought change in our working conditions, research field, learning approaches, teaching methods and also in gathering information. So main objective of this paper is to see what the benefits of technology are, what are the limitations and challenges for inclusion of Technology in education?*

Keywords: Technology, education, colleges, internet

1. Introduction

The use of Information and Communication Technology (TECHNOLOGY) in the education and provision of these technologies in the colleges have raised many issues of concern to parents and teachers. One of the most important issues is the role of the technology in the education, and how these issues should be implemented in the education, and most importantly what is the impact of technology on teaching and learning. The other factor of concern is the impact of these technologies in terms of increasing access to quality education. Learners in our colleges today will require a good knowledge technology, skills and awareness about the technologies if they are to be successful in the future. The economy of a country will depend on a high level of technology capability from its citizens if it is to develop technologically and to compete internationally. It has been observed that there is a wide gap between richer and poorer countries due to different speeds of inclusion of technology. It is high time that all these issues have to be addressed soon if we have to see a improvement in productivity and want our country to be a developed nation .It is very important to see that all our workers should have knowledge of technology and the education and also skills to use these in work.

2. Definition of ICT

In present world from the time we wake up in the morning till the time we sleep we are surrounded by the media such as television, computers, and newspapers and so on. All these media comes under one single world known as ICT. In today's society knowledge of ICT is very much essential. ICT are more often associated with computer technologies, but it also includes televisions, radio and telephone technologies. In short anything which gathers the information, stores the information, process and distributes the information comes under ICT. The computer and Internet technologies are called as the digital media, whereas audio visual media such as the slides and transparency, tape recorder, radio, television comes under analogue media.

3. Role of Technology in Education

As liberalization, globalization and privatization influencing the socio economical aspects of our current society, role of TECHNOLOGY is very much important as analogue media such as television and radios will not be as effective compare to computer and internet technologies. TECHNOLOGY are making dynamic changes in today's world. They are influencing all aspects of our life; especially the TECHNOLOGY has brought tremendous changes in education system. Education plays vital role in building our society. It is a socially oriented activity. Quality education is mainly associated with the strong educators and the usage of ICT in education moved the education system into more student centered learning. ICT plays prominent role in integrating technology into education. ICT also influencing teaching and learning process, since it provides more opportunities in accessing the information from any corner of the world, also helping with new teaching techniques.

The main objectives of implementation of ICT in education are

- To improve the quality of learning
- To enhance the quality of teaching
- Enrichment of the education.
- access to all the level of education
- To improve the management systems

In today's education system we can see different levels of learners. One level consists of those learners who can afford to pay high cost and obtain it from any reputed public or private institutions. These will get best of facilities and will become educational elites and one more level of learners who are intelligent but are unable to afford high cost of education, these obtain education from any public institution and compete themselves with first level of learners. There are also learners who are financially and academically poor and will get education from lower quality institutions. In order to provide quality education to all these above level of learners a strong ground work is essential and also a large number of dedicated personnel are required. The skill of a Teacher in using technology is a major factor in improving the student learning with technology. As we require an effective education which not only provide knowledge for learners but also provide with them a way of leading their life. Education should be built in such a way that it should be

relevant to today's world of technology. The effective usage of TECHNOLOGY by teachers has a great impact on the teaching-learning process. TECHNOLOGY helps in motivating the students and also engage the learners. TECHNOLOGY helps in improving educational opportunities. It brings life to concepts. The TECHNOLOGY has the potential to bring a positive change in the way we present a concept and also has great influence in changing the student-teacher interaction in the classroom. It is a challenge for teachers also since they have to change the way of teaching from a traditional into modern way of teaching. The teachers now have becoming facilitators of learning. It is not sufficient for teachers to only rely on the content knowledge, since it is readily available in internet and also very easy to gather the information through these technologies. So it is very essential that teachers should emphasize more on critical thinking skills, helps students to improve the TECHNOLOGY literacy, also promote the students in improving team working ability in order to make them ready for the future working environment.

One of the most important questions asked by most of the teachers is: What is the long term impact of the introduction of TECHNOLOGY in the education? Computers, in particular, have positive impact on learning and are motivating for learners. They are accepted by more teachers than other technologies and are supported by administrators and parents also. The teachers can use TECHNOLOGY in a productive way. Through TECHNOLOGY the teacher can make teaching more interactive and enjoyable for students. The complex and abstract topics can be easily explained with the use of the multimedia technologies. Conventional teaching gives more emphasize on content and it is written over the text books. But Teaching is not merely a transmission of knowledge. Teachers can also motivate the students to write the articles, journals or any other write-ups which they can publish online. Teachers can increase the learning time without effecting the class hour by using television, radios, interactive software etc. One of the most important uses of internet is online libraries-books and e-journals. We can gather plenty of information from these at very low cost and maximum time for free of cost also.

There are two major approaches in using TECHNOLOGY in education firstly the students can learn from media and technology and second, they can learn with media and technology. The new technologies of communication i.e. the individualized computer assisted learning systems to the mass directed radio and television offer an unparallel opportunity to reconsider conventional educational and learning practices in institutions. But one of the major concerns of the developing countries like India is access, resources and equity. The urban population can easily get access for these communication technologies, where as the rural population access to technology is very difficult also.

Computers and internet technologies increase equity of access, and reduce the time needed to accomplish a given set of objectives. Computer based cognitive tools such as databases, spreadsheets, semantic networks, communication software such as teleconferencing programs, computer programming languages etc are developed in such a way that learners themselves function as designers so that they

can represent and express what they know. These tools require students to think in meaningful ways about how to use an application. They not only learn deeply but also their opportunities for reflections are also enhanced.

The usage of computer and Internet technologies in our education system has changed the concept of traditional education into a modern education system. The information and data are readily available on the internet and most of the time they provide the correct and true information. The learners can make use of all the new multimedia technologies to gather information, ideas and complete any given assignments or projects within given period of time. Also they can represent it in attractive and quality of presentation can be improved.

As all the technologies comes with strength and weakness, so is TECHNOLOGY, we should lists out the strengths and weakness because it is very important to know what they are to impart these in our education..

4. Benefits of Technology

- Students can learn as an individual and need not work in a group, each individual get equal opportunities to connect to the content.
- It improves self directed learning.
- Distance and climate factors will not affect the learning. Sitting at any corner of the world we can access and learn from the computer technology.
- Cost of education also reduced compared to traditional education.
- TECHNOLOGY requires less human resources.
- Quality of presentation can be improved.
- The information can be gathered within fraction of seconds.
- The content which one receives is of uniform quality i.e. the same quality is delivered to poor and rich and also at same cost.
- Prepares the students for real world.
- TECHNOLOGY helps in multiple teaching functions i.e. TECHNOLOGY are also useful in evaluation and assessment.
- TECHNOLOGY give more opportunity for vocational and work force skills.
- TECHNOLOGY provides teachers with new source of information, skills and knowledge.

5. Limitations of Technology

- The institutions which are in remote areas have lack of electricity supply. The computers, televisions, radios etc require electricity. Computers, Xerox machines, fax machines, etc require electricity. One method to provide electricity is through generators which are very expensive. It requires a lot of money.
- The maintenance of these devices requires a lot of money and lack of fund is the one of the major issues in implementing these devices in education.
- The lack of TECHNOLOGY knowledge in teachers is also a concern in order to implement TECHNOLOGY in education.

- Suitable software is required according to education.

The other communication technologies such as televisions, radios, tape recorders, transparencies, filmstrips, videodiscs etc also play a vital role in education. The computers and internet based technologies are not easily available for rural population. Whereas television and radios are readily accessible in almost all the places including rural and urban places. Television broadcasting is diverse and vast. These Medias are not only serving as entertainment media but also helps in communicating information, skills, and ideas and educate the learners. It create interactive learning atmosphere inside a classroom. The audio visual aids help the students in remembering the concept very well. These technologies can show the things which they cannot experience in real life. The usage of text, graphics, videos, animations etc makes teaching very interesting and also at the same time it is effective. Teachers can record programmes related to the topics and show it to the students at any time and according to one research it has got same impact that of live teaching.

The benefits of these are listed below:
- Helps in improving the quality of education.
- Provide the education to all level of students.
- With the help of television broadcasting at a particular time maximum number of students can be educated across the country.
- It is more effective way of communication compared to verbal communication.
- Provide flexibility of time in education. i.e. the topics can be telecast many number of times.
- Abstract concepts can be easily explained to students.

6. Conclusion

Media and technology have many other advantages in terms of repeatability, transportability and increased equity of access. In addition to this cost-effectiveness, cost benefits and return on investment of media and technology is of great benefit under certain conditions, especially in developing countries. Media and technology can be more or less well designed depending on the talents, resources and timelines available for the development effort. There are numerous scientific principles to guide designs, but every instructional development efforts involves large amount of creativity and hard work.

The TECHNOLOGY has a significant role in higher education and implementation of TECHNOLOGY in education is a right move in the right education. The concept of the information and communication technology is broad and it has infinite usage. The education ministry should come up with the proper guidelines on how to impart TECHNOLOGY in education .In-service workshops should be conducted frequently since technologies are changing rapidly, teachers should update their knowledge of TECHNOLOGY in order to bring the positive and effective changes in the way of teaching-learning process..

Technology helps teachers to reach different types of learners and also helps in enhancing the teacher-student relationship. All the communication technologies need not enhance the learning outcomes. .Students should have knowledge and skills of TECHNOLOGY in order to be successful in their future. Being a developing country INDIA the future of the country will depend on high level of TECHNOLOGY capabilities. All the technologies come with strengths and weakness. It is the role of teacher to select a suitable medium through which he/she can communicate to students positively and effectively to get a desirable result. The implementation of TECHNOLOGY in education may change the role of a teacher as TECHNOLOGY by itself provide plenty of information, knowledge and provide a medium to transmit the content; the teacher will become facilitator of learning.

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