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Opportunities and challenges of using ICT in teaching learning process in India

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Abstract

Education means change in behaviour. It is rightly defined by Erich Fromm (1979) as, “Education is wrapped up with who we are as learners and facilitators of learning – and how we are experienced by learners.” There are various methods to learn in the classrooms. Combination of different methods in learning can give good outcome of learning. Hence, the support tools and equipment plays a vital role in teaching-learning process. Teaching aids are an integral component in any classroom. The many benefits of teaching aids include helping learners in improving reading, comprehension skills, illustrating or reinforcing a skill or concept, differentiating instructions and relieving anxiety or boredom by presenting information in a new and exciting way. Teaching aids are associated as integral part in teaching-learning process. The various edges of teaching aids embrace as a serving to learners’ improvement in reading, comprehension skills, illustrating or reinforcing a talent or construct differentiating instructions and relieving anxiety or dissatisfaction by presenting data during a new and exciting methods. Aids are necessary as a result that they produce a visible and interactive expertise for the scholars. Teaching aids assist students in learning. These aids incorporate video, audio and active tools to assist the involvement of the scholars and enhance the educational expertise. In research, visual aids are useful to facilitate in creating students as a sensible observer. Now-a-days, apart from traditional types of teaching aids, new modern technical tools are working as effective teaching aids in teaching learning process. Current work deals with opportunities and challenges in using ICT tools in Indian classrooms.

Keywords: Teaching-learning process, teaching aids, acquisition skill, ICT tools etc.

Introduction

Education in India is started with Gurukul Structure since long back. Learning could be an advanced method. Visual aids arouse the interest of learners and facilitate the academics to clarify the ideas simply. Visual aids are those tutorial aids that are employed in the schoolroom to encourage teaching learning method. Learning materials are necessary as they considerably increase student action by supporting student learning.

Effective Teaching is an important aspect because effective teaching helps student learning with easy way. It has become even more important as the emphasis on quality in higher education has increased. There are numerous methods of teaching in classrooms.

- a. Power Point (or equivalent) Microsoft PowerPoint is probably now the most commonly used form of visual aid. ...
- b. Overhead projector slides/transparencies. ...
- c. White or black board. ...
- d. Paper handouts. ...
- e. Flip chart. ...
- f. Video (DVD or VHS) ...
- g. Artefacts or props

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With above all methods using in the classroom, the good result can be achieved as learning outcomes. Following are some important benefits of teaching aids in the classroom:

- a. **Focus on the scholars:** To begin with, the class room must be student-centric, and not teacher-centric with purpose to find it irresistible in several cases. The one issue that a coach mustn't lack his/her interest in and compassion for college students. In absence of interest and compassion, the topic appears additional stern than it really is and, even worse, the scholar doesn't find oneself learning similarly as he or she may have.
- b. **Connecting New Ideas with Previous and Real-world ideas:** If you wish to boost interest during a subject among your students or give the simplest rationalization for an inspiration, the simplest issue to try to do is to relate it with an older thought or with real-world example. By coupling new thought with previous knowledge, students are able to perceive the broader scale learned knowledge. With real-world

examples, they will perceive new ideas which can be applied efficiently.

- c. **Proper assessment and feedback:** This virtual learning strategy involves the various assessment techniques for student's performance and permits students to showcase their own understanding of the subject in various ways. Rather than exploitation, assessment strategies that are supported memorisation, use the facility of feedback and inspire or correct your students to push a higher sense of learning.
- d. **Giving students' independence and challenges:** A good teacher is in a position to provide their students the independence to explore their own level of understanding, instead of pushing them towards a customary set of objectives. As a coach providing virtual, one ought to conjointly give them the challenges acceptable to students' understanding.

Higher education plays a vital role in the development of career of the students. Indian universities and institutions data is given in the below table.

Table 1:

S. No.	Type of Institutions	Number of Institutions (As on 31.03.2009)	Number of Institutions (As on 31.03.2010)
1.	Central Universities	40	42
2.	State Universities	231	256
3.	State Private Universities	21	60
4.	Institutions established through State Legislation	5	5
5.	Institutions Deemed to be Universities	128	130
6.	Colleges	425	493
	Total	25,951	31,324

(Source: [https://en.wikipedia.org/wiki/Central_university_\(India\)](https://en.wikipedia.org/wiki/Central_university_(India)))

ICT in Higher Education: Today's era is technical era. Day-to-day life is becoming part of technical support. It becomes the global need. Industrial development is increasing day-by-day. Accordingly technical need is also developing rapidly. Therefore use of ICT tools in the classroom as teaching aids is becoming compulsory part now-a-days. From nursery to Higher Education- computer literacy is mandatory in this technical era. There is no excuse from ICT support as teaching Aids in Higher education in Indian colleges and universities. Smart Classrooms, LCT Projectors, mobile in the classroom etc. ICT tools are used in the classrooms. Apart from it, MOODLE, NPTL, SWAYAM etc. portal are there; which are used as ICT Tools in the classroom. As coin has two sides, use of ICT has both opportunities and challenges in the classroom.

"Curriculum integration with the use of technology involves the infusion of technology as a tool to enhance the learning in a content area or multidisciplinary setting. Effective integration of technology is achieved when students are able to select technology tools to help them to obtain information in a timely manner, analyze and synthesize the information and present it professionally to an authentic audience. The technology should become an integral part of how the classroom functions—as accessible as all other classroom tools. The focus in each lesson or unit is the curriculum outcome, not the technology." (Chapter 7: Technology Integration, U.S. Department of Education". National Centre for Education Statistics (NCES). December 9, 2008.)

In the era of digitalization, technology and information have taken centre stage in national and international debates. At

constant time, ICT has become an integral part of nearly all sectors and segments particularly coupled to the education landscape. Be it teaching, learning and assessment, ICT is crafting the role of future education in Republic of India, writes Rashi Hindu deity Ghosh of Elets News Network (ENN).

Significance of ICT in Teaching-Learning Assessment

ICT has modified the education status within the previous few decades by rising the foremost economical tools. It has been utilized as the teaching method by tutors and learners. According to Vaibhav Kapoor, Principal, Ajanta Public faculty (Gurugram), ICT has modified with the face of education over the previous few decades. "It has evidenced to be a boon to each the lecturers and therefore the learners. Trying to find matter on the far side, the textbooks are not only sufficient and any longer work a challenge with relation to time and resources."

Recognising the importance of digital acquisition in rural Republic of India, in 2013 Samsung Republic of India launched a wise category initiative untidily with Navodaya Vidyalaya Samiti. The initiative is offered across five hundred Jawahar Navodaya Vidyalaya faculties, benefitting over a large number of students. The complete programme has imparted coaching to over 8,000 lecturers on interacting technology.

Gopal Singh Tomar, Principal, Jawaharlal Navodaya Vidyalaya, Dadri (Uttar Pradesh) feels that 60 per cent of the scholars in our faculty are the first time users of technology. Stating that students are now confident and the

use of technology helps our teaching also to a good extent, he said: "Our results have improvement post-ICT." Lately, technology is taking part in a significant role to confirm effective and economical assessment of learning. Fashionable technology is providing educators with a large vary of tools that may be utilized in the room.

Following are the opportunities of using ICT in Indian Classrooms:

Technology contributes to global development and diversity in classrooms while helping to develop upon the fundamental building blocks needed for students to achieve more complex ideas. In order for technology to make an impact within the educational system, teachers and students must access to technology in a contextual matter that is culturally relevant, responsive and meaningful to their educational practice and that promotes quality teaching and active student learning.

- 1. It helps to think in a different Way:** Thinking with a different way is possible due to using ICT tools in the classroom that a technology coach should get number of options for the queries in his teaching-learning process as it is connected with globe.
- 2. It helps to acquire the text easily:** Use of ICT as a teaching aid in the classroom will help the students to get knowledge soon. Because the new generation feels ease and comfort with new technological tools.
- 3. It Enhances the Performance of Educators:** Technological teaching aids will enhance the performance of educators, professors and whole college and university systems. Basic skills for the scholars and educators of the twenty first century skills can embody basic acquisition within the subject areas however additionally; students can get knowledge of basic scientific, economic and digital acquisition.
- 4. It works as Important Tool of Technology:** The advantage of technology use for learning lecturers got to be able to appreciate the advantages of technology as a tool for learning. They have to look at the technical tool, as useful, facultative tool for their students and useful to themselves to perform their jobs a lot more effectively. Lecture rooms should support learning environments which assist in the understanding of what keeps youngsters in eager pursuit of information.
- 5. Helps to Measure Outcomes of Teaching Learning Process:** New age "technology-enabled" lecture rooms help to measure the result of teaching learning environment and the strategic use of data and communication technologies (ICTs). These lecture rooms enable the lecturers to use numerous digitized instrumentalities, applications, extensions associate used in the websites to boost their teaching methodology and connect with the scholars in an economical manner. Digital or ICT lecture rooms foster a system of interactive learning and facilitate the scholars to achieve a technology-based education.
- 6. Variety of Tools:** Digital lecture rooms with the variety of ICT tools can be used and it is useful to speak, store, manage and circulate information and concepts. The most effective part is to integrate ICT within the lecture rooms which would interchange ancient blackboards and chalks with interactive flat panels, good notebooks, digital projectors, etc. ICT lecture rooms help with designed teaching aids which will work as a supportive

tool in the lectures to utilize the time by encouraging them to participate in interactive exercises, where they can review lectures on a laptop (portable computer} or a computer for revision functions. College workers will notice advanced ICT tools from any far-famed provider of those things.

As earlier explained coin have both sides. Apart from above opportunities, following are some challenges to use ICT in Indian classrooms.

Challenges in Teaching ICT in India:

- 1. Resistance to change:** Easy resolution is to stay with the establishment. Educator's measure comfortable and accustomed standard methodology of teaching-learning process. It resists them from coming out of their comfort zones. In step with the researchers, lecturers and faculty leaders usually see technological experimentation as outside the scope of their job descriptions.
- 2. Lack of Hardware and Steering to use them:** Schools and colleges are still undecided on what form of computers and different technological devices they ought to use. Establishments got to perceive their demand and work consequently. Convenience of gadgets, it is vital for correct and swish functioning with none hindrances.
- 3. Preparation of Mind-set to use ICT tools:** Institutions and lecturers got to prepare themselves to form students work along with one electronic device for which they have to set their mind from traditional teaching aid to ICT based new modern tools. In addition to it they have to allow them to work one by one on one device. Additionally there's a necessity for correct and timely steering that ought to be provided to lecturers for effective use of technology.
- 4. Inferiority Complex among Educators:** Kids these days are using these electronic devices with a lot of active role and professional are getting tough to involve themselves with technical things. Lecturers are scared of the potential technology holds and therefore the power of information is known to students and they will get with it more than teachers. Attainment of rapid dynamic knowledge through modern devices makes educators insecure..
- 5. Worry of technology:** There is always fear of new things while individual works with it. Same is to educators; they have this worry of being unknown with new technologies. They're frightened to experiment with new technologies. Moreover, this thought of getting to be told it that all quickly slips them far away from the concept of integration technology.
- 6. Lack of coaching opportunities and rigid teaching models:** Educators aren't supplied with sufficient coaching and correct technical support in using of ICT in the classrooms. Either they have to pay a huge amount for it or have to wait for long time study to get skill of using ICT. With such a big amount of roles to play, there's shortage of the time to apply with new and dynamic technologies. They are using already existing teaching models which are easy for them and they are quite comfortable with it.

Conclusion

Thus though there are some challenges in using ICT tools in the classroom of India, instead, lecturers ought to move and have interaction with different students. Lecturers even have to become a learner so as to get pleasure from the advantages of this combine. The Current wants of developing Republic of India need it to adopt many scientific and technological innovations. As a result, education sector is facing a great deal of challenges in meeting the ability demands. Providing an answer to the current, STEM (Science, Technology, Engineering and Mathematics) is rising because the new different futurist education, has been rightly pointed by Rashi Hindu deity Ghosh of Elets News Network (ENN). With the normal teaching methodology having undergone a sea-change, students will nowadays expertise totally different connotations by 'doing and learning by themselves' vogue. And, this can be wherever STEM education comes into image. Within the last decade around, with the mushrooming of many technological firms within the country, the Indian education system appears to get on the proper track for development but still there is a room for uplifting the infrastructures and digital literacy skills of educators.

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