ICT INTEGRATION IN SCHOOL EDUCATION

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ABSTRACT

Over the past few years, the fast development of Information and Communication Technology (ICT) has become one of the main subjects talked about by the researchers in the field of education. This is because of the capacity of ICT in giving a dynamic teaching-learning environment. In accordance with the ongoing advanced period, educators are expected to integrate ICT in their everyday teaching and swap their outdated teaching methods with modern ones. But, a few hindrances may discourage both teachers and learners to integrate ICT in education such as lack of funds or experts. The way of utilizing ICT is changing very rapidly in education that is extremely complex, because individuals can't be aware, what is it, how might we handle it, when to use it. Individuals should realize what kinds of tasks could be performed with ICT. This paper analyzed the significance of ICT integration in school education.

Keywords: Information and Communication Technology, school education, teaching- learning process.

INTRODUCTION

The blending of ICT in education process is an excursion that can get remarkable development in the progress of nation. Due to the impact of COVID-19, the education process has shifted from face-to-face to online mode. ICT integration into the educational program can help in rebuilding and reorienting the entire education system by streamlining the students' learning outcomes. ICT can help in advancing consideration by giving space to adaptability that empowers feasible turn of events. ICT skills permit the instructors to incorporate ICT into their teaching- learning experience effectively. ICT integration additionally empowers adaptability and better maintenance among the students utilizing the multi-media mode. The role of Information and Communication Technology (ICT) in school education is unquestionable around the world. ICT have possibly incredible asset for broadening educational opportunities. ICT have the capacity for expanding access to and working on the pertinence and quality of education. ICT can boost the quality of education in more ways than one: by expanding student's inspiration and commitment, by working with the procurement of fundamental skills and by upgrading teacher's training.

The present century demand the need to shift from conventional teacher- cantered methods to learner-cantered methods. Thus, Information and Communication Technology (ICT) facilities need to be incorporated in our school education system. ICT stands for Information and Communication Technology and is defined as, as a "diverse set technological tools and resources used to communicate, and to create, disseminate, store, and manage information". The United Nations Development Programme (UNDP) defines Information and Communication Technologies: "ICTs are basically information-handling tools-a varied set of goods, application and services that are used to produce, store, process, distribute and exchange information". Information and communications technology (ICT) in education is the processing of information and its communications facilities and features that variously support teaching, learning and a range of activities in education.

CHARACTERISTICS OF ICT IN EDUCATION

The main characteristics of ICT in education are as follows:

- ICT in education is any hardware and software technology that contribute in the educational information processing.
- ICT in education is any Information Technology that focuses on the acquisition, storage, manipulation, management, transmission or reception of data required for the educational purpose. For example, the information about students' records, their admissions, updates of their curricular and co- curricular activities.
- It is the technology that deals with the exchange of information or in other words communication in the teaching learning process.
- It encompasses Hardware approach like use of machines and materials, Software approach like use of methodologies and strategies of teaching learning and Systems approach that uses the management

technology that deals with the systematic organization of the hardware and the software. Different software packages for the use in different department of education;

- e.g. library software, administration software, software related to managing the entire teaching learning process.
- ICT in education is the support material in the hands of the human resource involved in the educational process in order to enhance the quality of education.
- ICT in education comprises of the application of science of On-line, Offline learning with the help of the computer technology.

ICT IN TEACHING AND LEARNING

Research has shown that ICT tools utilized in classrooms enhances the learning process in the following ways: Students can access information that is available worldwide

- Foster inquiry and exploration
- The integration of modern ICT tools into teaching/learning process has potential to enhance the environment for learning
- Motivate and engage students in learning process. Images, sound, colours and movement can stimulate the students learning capabilities.
- Quick access to information
- Easy availability of updated data
- Catering to the individual differences
- Wider range of communication media
- Wider learning opportunities for students

India is a fast-emerging country and its ICT framework will improve its current status from the three levels of ICT integration to five levels of ICT integration

i.e. entry level, adoption level, adaptation level, infusion level, and lastly, transformational level. NEP-2020 also suggests the advancement of ICT integration by making different strides like the foundation of NETF, NRF and advancement of digital portals like SWAYAM and SWAYAM PRABHA where the teachers can transfer their advanced learning assets for giving quality education to the students living even in the remotest parts of the country. All these efforts will undoubtedly help in rebuilding and reforming school education system and the entire country's destiny without a doubt relies on revamping the entire system of school education.

LIMITATIONS OF ICT USAGE IN SCHOOLS

- Costs (set-up, maintenance, training, keeping staff up to date, software, etc.) can be high
- Literacy skills worsen – students spend less time in reading & writing
- Can make people physically unfit; personal & communication skills can be lost
- Doesn't have the motivation that a teacher has
- Computers cannot explain things in different or creative ways
- Computers cannot adapt to different needs – they can only do what they are programmed to do
- People become reliant on ICT (as if our computers didn't work we couldn't have any lessons!)
- Learning from a computer isn't fun for many people

CONCLUSION

There is a common misconception that the integration of technology in the classroom can be a financial burden for school districts, but students do not necessarily need their own tablets or laptops to succeed with technology. The utilization of technology during class instruction can foster student engagement for auditory and visual learners. Integrating simple technologies in the classroom such as Power Points, Internet based homework assignments, games, or online grading systems can be difference makers in students' growth in the classroom. Blending of technology in education simply means the usage of technology to upgrade the student learning experience. Using various sorts of different types of technology in the classroom, including a virtual classroom, creates learners who are actively engaged with learning objectives. Thus, the implementation of technology also creates pathways for differentiated instruction to meet the unique needs of students as individual learners within a broader classroom climate.

REFERENCES

1. Castle, S. R., & McGuire, C. (2010). An analysis of student self-assessment of online, blended, and face-to-face learning environments: Implications for sustainable education delivery. *International Education Studies, 3* (3), 36.

2. Hargittai, E. (2006). Hurdles to information seeking: explaining spelling and typographical mistakes in users' online search behavior. *Journal of the Association for Information Systems, 7*(1), 52–67.

3. Jebakumar, C. (2009). A study of virtual learning environment with reference to the perceived preparedness of college students in Tamil Nadu. *Unpublished PhD Thesis,* Tirunelveli: The Manonmaniam Sundaranar University.

4. Kivunja, C. (2014). Theoretical perspectives of how Digital Natives learn. *International Journal of Higher Education, 3* (1), 94.

5. Kumar, R. (2013). Virtual classroom system*. International Journal of Engineering Trends and Technology (IJETT), 4*(4), 1232-1236.

6. Kuo, F. R., Hwang, G. J., & Lee, C. C. (2012). A hybrid approach to promoting students' web-based problem-solving competence and learning attitude. *Computers & Education, 58*(1), 351–364.

7. Leng, G. S., Lada, S., Muhammad, M. Z., Ibrahim, A. A. H. A., & Amboala, T. (2011). An exploration of social networking sites (SNS) adoption in Malaysia using technology acceptance model (TAM), theory of planned behavior (TPB) and intrinsic motivation. *Journal of Internet Banking and Commerce, 16* (2), 1-27.

8. Mehtani, R. D. (2007). *Modern Technology in Education*. Delhi: Indian Publishers' Distributors.

9. Rae, A., & Samuels, P. (2011). Web-based personalized system of instruction: An effective approach for diverse cohorts with virtual learning environments? *Computers & Education, 57*(4), 2423–2431.

10. Sternberg, R. J. (1988). *The nature of creativity: Contemporary psychological perspectives.* New York: Cambridge University Press.