



The Role of ICT to Make Teaching- Learning Process Effective

Dr. S. K. Agrawal

Assistant professor, Department of Textile Engineering, College of Engineering and Technology, Akola

DOI: 10.5281/zenodo.7901157

ABSTRACT

In current era ICT plays very vital role to make teaching-learning process more effective. There are numerous advantages of ICT such as enhance teaching effectiveness, ensure active participation, foster collaborative learning, easy student evaluation and better conceptual understanding. Many ICT tools are available to increase the efficiency of teaching and learning process. It offers different way to teachers to improve their pedagogy and put it to the next level. This review summarized use of ICT tools to improve teaching learning process, role and scope of ICT to enhance the teaching learning process more effective.

Keywords: ICT, Teaching-Learning, enhance teaching effectiveness.

1. INTRODUCTION:

Teaching-learning process is a backbone of any country and plays a vital role in building a good nation [1]. E-learning is described as virtual or online learning. It offers a way to share reading materials using internet through documents, emails, presentations or webinars. Information technology has become an important part of modern education and it shows huge involvement of ICT in the present teaching-learning process. Educators can share study materials and lectures in the form of PPT, PDF or Word document by uploading them on their respective university WebPages, on what's app or through e-mails to maximum students during this lockdown ICT [2-3]. Lectures have been also taken through WeChat, by sharing audio-visual videos through e-mails, by different online teaching apps like goggle meet, Zoom, goggle classroom, g-suite cloud meeting and so on. The development in technologies has offered a favorable domain for teaching-learning processes. It offers different way to teachers to improve their pedagogy and put it to the next level. It enhances the teaching and learning process [4]. The teachers can motivate students to enhance their learning skills through innovative ways. ICT has brought a huge change in the traditional methods of teaching and learning. Through ICT, learning can occur anytime and anywhere. Online course materials, for example, can be accessible 24 hours a day, seven days a week. Therefore ICT provides both learners and teachers with more educational affordances and possibilities. [5-7].

2. ICT TOOLS USE IN TEACHING AND LEARNING PROCESS:

ICT tools can empower the teachers and learners; promote the change and faster development in 21st century skills. ICT defined as “a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information” [8]. It provides creativity, problem solving abilities, information processing skills and other higher order thinking skill. It gives the more opportunities to use multiple technologies to teacher. Some of the ICT Tools which are used for teaching learning process are as below. These tools help learners to acquire skills required for smooth communication. These tools are helpful to teachers as well as students.

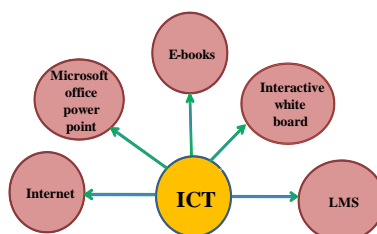


Fig: ICT Tools

2.1 Microsoft office PowerPoint

PowerPoint can be an effective ICT tool to present material in the classroom and encourage student learning. You can use PowerPoint to project visuals that would otherwise be difficult to bring to class. It is a part of the Microsoft Office system which is widely used by business people, educators, students, and trainers. As a part of the Microsoft Office suite, Power-Point has become the world's most widely used presentation program. It is a complete presentation program that allows teachers to produce professional-looking presentations in classroom [9]. Microsoft PowerPoint could easily be used to develop interesting and interactive learning tools by any



teachers to make teaching and learning more effective and break the monotony and passivity of traditional classes [10-11]. PowerPoint is very helpful to make teaching learning process more effective [12].

2.2. Internet

The development of internet in teaching and learning process has an incredible influence. The information from the internet source makes the teaching and learning process very valuable and effective [13]. The usage of internet provides new modes of communication that increases the social interaction among people living in different countries reducing the problems of distance learning by various social networks. Moreover, the effective application of internet in teaching-learning process improves the pedagogical methods and also saves time [14]. The research of the study indicated that eighty percent teachers use internet to provide online demonstration [15-16].

2.3 E-books

Digital Books make the learning process more interactive and engaging. There are several studies involving the use of e-Books in the classroom as a medium of teaching. Most of the studies discuss the effectiveness of e-books in enhancing the learning process [17]. It provides a positive response to students. Currently, e-book is becoming more favorable for many students. It is because e-book offers several advantages over printed books, such as e-book is easier to carry anywhere, can be read anywhere and anytime, e-book prices are relatively cheaper when compared to the printed version [18].

2.4 Interactive white board (IWB)

Now a day's many teachers and administrators seem to be enthusiastic about using the whiteboard to make teaching learning process effective. Interactive Whiteboard has been widely used recently in educational settings and many studies have been conducted on the impact of technology on education and most of them yielded positive outcomes of IWB in the learning environments [19]. The interactive whiteboard seems to be generating a great deal of enthusiasm among educators, and for good reason. It appears to motivate and engage students, and these are vital components of teaching and learning [20].

2.5 Learning Management System (LMS)

A learning management system (LMS) is a software application or web-based technology used to plan, implement and assess a specific learning process. Learning management systems are information systems that administer instructor-led and e-learning courses. Through LMS student progress including training, evaluating, and tracking of results can easily be established [21]. LMS is an engaging and successful source. Using learning management systems is one approach to online learning. Learning Management Systems have gained popularity among both the educational institutes and students as a software application used for planning, implementing, and examining the whole education process. LMS are also popular with the following titles as knowledge management systems, course management software, and virtual educational or learning environments [22-23].

3. ROLE OF ICT IN TEACHING LEARNING PROCESS:

3.1 Platforms for online education: There are different platforms available for online education. Through these platforms, online classes can be taken, videos can be uploaded, recorded videos can be sent. So these platforms are helpful to the students as well as teachers. Eg. Swayam, Webex etc.

3.2 Use of different e-content: Due to online education there is no time limit as well as place restriction for learning. Anyone can learn from any place and at any time. So many type of education any one can take. And different e-contents are also prepared for students. These are helpful for them to enrich their knowledge.

3.3 Use of apps: Different apps nowadays are used for online education. These apps are helpful for students and teachers to interact. Such type of apps is also used for meetings, online teaching learning process and presentation. Eg. Zoom, Google meet, Google classroom, What's App etc.

3.4 Online education: Due to Covid-19, there was no option without online education. As lockdown did not allow for opening schools, colleges, so online education was only one option through which education can be continued. Student can study through online resources. There are different resources through which it will be helpful for students to understand topic. Students can meet teachers online and get required knowledge about the subject. Students can have no limit of time and place [24].

4. CHALLENGES AND SCOPE OF ICT IN TEACHING LEARNING PROCESS

There are many problems related with online learning, but we cannot ignore its importance in teaching-learning process. We can solve these problems in many ways. The online course contents must be self-motivated, exciting and collaborative. Online courses must be creative, collaborative, relevant to the course content and students-centered. Despite having challenges and problems, adoption and integration ICT for



betterment of teaching-learning process and creations of quality culture has become need of the hour. The focus needs to be shifted from challenges to the possible solutions [25].

5. CONCLUSION

Use of ICT in today's scenario is very much helpful. There are numerous modern ICT tools are available to improve teaching-learning process and to increase the efficiency of educational system. This review summarized that use of ICT is successfully effective in teaching-learning process.

REFERENCES:

- [1] A. Baiyere, H. Li, (2016), Application of a virtual collaborative environment in a teaching case. In AMCIS 2016: Surfing the IT Innovation Wave - 22nd Americas Conference on Information Systems.
- [2] S. Yang, P. Fichman, X. Zhu, M. Sanfilippo, S. Li, K. R. Fleischmann, (2020) The use of ICT during COVID-19, *Proc Assoc Inf Sci Technol* 57(1) e297.
- [3] V. D. Soni, (2020), Global Impact of E-learning during COVID 19, *Electronic Journal*.
- [4] S. Thamarana, (2016), Role of E-learning and Virtual Learning Environment in English language learning Role of E-learning and Virtual Learning Environment in English. *Research Scholar*, 1-8.
- [5] G. Ali, F. A. Haolader, K. Muhammad, (2013), The Role of ICT to Make Teaching-Learning Effective in Higher Institutions of Learning in Uganda *International Journal of Innovative Research in Science, Engineering and Technology*.
- [6] J. S. Fu, (2013), ICT in Education: A Critical Literature Review and Its Implications *International Journal of Education and Development using Information and Communication Technology* pp. 112-125.
- [7] N. P. Niroula, (2021), Role of ICT in Educational Development during COVID-19 Pandemic in Bagmati, Gandaki and Lumbini Zone of Nepal *Horizon J. Hum. & Soc. Sci.* 3 (1): 103 – 110 (2021)
- [8] A. Narad, N. H. D. Kaitano, (2020) ICT and Teacher Effectiveness: A Literature Review, *Journal of critical review* 9(7).
- [9] F. S. Lari, (2014) The Impact of Using PowerPoint Presentations on Students' Learning and Motivation in Secondary Schools, *Procedia - Social and Behavioral Sciences*, 98, 1672 – 1677.
- [10] G. K. Bahadur, (2013) Using PowerPoint Presentations as a Tool for Effective Teaching and Learning of Water Science for Upper Primary Pupils in Mauritius, *The international Journalm of Science, Mathematics and Technology Learning*, 9(2).
- [11] M. Hashemi, M. Azizinezhad, M. Farokhi, (2012) Power Point as an innovative tool for teaching and learning in modern classes, *Procedia - Social and Behavioral Sciences*, 31, 559 – 563
- [12] M. Hafeez, (2021) Teaching-Learning Process and Ict Tools- A Review, *Indonesian Journal of Basic Education*, 4(1).
- [13] L. G. R. Rolando, D. F. Salvador, M. R. Luz, (2013) The use of internet tools for teaching and learning by in-service biology teachers: A survey in Brazil. *Teaching and Teacher Education*, 34, 46-55
- [14] S. Jan, A. Hussain, M. Ibrahim, S. Saeed, (2018), Use of internet by the teaching faculty of Peshawar Medical College, Peshawar, Khyber Pakhtunkhwa, *Journal of the Pakistan Medical Association*, 68(3), 459-462.
- [15] I. Forsyth, (2014) *Teaching and learning materials and the Internet* Routledge.
- [16] M. Hafeez, (2021) Teaching-Learning Process and Ict Tools- A Review, *Indonesian Journal of Basic Education*, 4(1).
- [17] Tuah, N. D. Herman, J. Maknun, E-Books in Teaching and Learning Process, 5th UPI International Conference on Technical and Vocational Education and Training (ICTVET 2018).
- [18] H. Serin, (2015), The Role of Interactive Whiteboard on Classroom Management, *International Journal of Academic Research in Progressive Education and Development*, 4(4).
- [19] H. Morgan, (2010), *Teaching With the Interactive Whiteboard: An Engaging Way To Provide Instruction* by, Spring, Focus on Elementary.
- [20] G. Khaferi, R. Bahiti, F. Imeri, Integrating LMS in Teaching and Learning Process in State University of Tetovo: Issues and Challenges, *International Scientific Conference Computer Science'2015*.
- [21] M. K. Mohammadi, A. A. Mohibbi, M. H. Hedayati, (2021) Investigating the challenges and factors influencing the use of the learning management system during the Covid-19 pandemic in Afghanistan, *Education and Information Technology*, 26, 5165–5198.
- [22] U. Alturki, A. Aldraiweesh, (2021), Application of Learning Management System (LMS) during the COVID-19 Pandemic: A Sustainable Acceptance Model of the Expansion Technology Approach, *Sustainability*, 13, 10991.
- [23] M. Mohite, (2020) Covid 19 and use of ICT in education, *Educational Resurgence*, 2(4).
- [24] S. N. Shende, B. M. Reddy, (2020), Integration of ICT in Higher Education Institutions: Scope and Challenges, *Studies in Indian Place Names*, 40.