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The Role of ICT in Teaching and Learning with Special Reference to Indian Education System: - A Narrative Review of the Literature

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Indian education is one of the world's largest and oldest educational systems. With unprecedented changes revolving around the educational sector, the use of ICT has created a massive impact on the teaching and learning process. The present study was focused on the narrative of the literature review on the use of ICT in teaching and learning. The review study covers articles coming from major journals including a taxonomy study and detailed investigation as to the methodologies, approaches, and findings of these works. The study's findings demonstrated that using ICT in teaching and learning has a favorable impact. Furthermore, when compared to the developed countries, the utilization of ICT in emerging countries such as India is very low. This study shall help the policymakers, management, teaching fraternity, and students choose the best tools and methodologies for reforming the new way of delivering education and improving experiential learning.

Keywords:- ICT, teaching-learning, Higher education, Technology, online learning

INTRODUCTION

"Technology will not replace great teachers but technology in the hands of great teachers can be transformational" – George Couros

India is an immense country with a wide range of cultures, languages, and histories, as well as a diverse educational system. Indian education is one of the world's largest and oldest educational systems. The formal education in India still constitutes of a traditional model or the brick-and-mortar classes. The Indian education system is frequently criticized for its antiquated curriculum, rote learning, high educational costs, poor teacher quality, and lack of facilities(Bansal, 2017).

The education system has been reformed by the Indian government through various education commissions at numerous steps in the last few decades. The Indian policymakers have tried their best for developing ICTs as a vehicle for promoting education since the use of satellite in the early 1970s (Ramesh, 2020) and since then, India has seen plenty of efforts aimed at promoting ICT and its use in education, both in the public and commercial sectors. Under the National Education Policy 2020, both school and higher education sectors are paving the path for large-scale and transformative reforms. The policy is based on the foundation of the five pillars such as Access,

Equity, Quality, Affordability, and Accountability which is also aligned with the Agenda for Sustainable Development 2030.

According to a recent study published in ("Education Industry Analysis - Indian Education Sector | IBEF," 2021) by the year 2025, the education sector in India is anticipated to rise to Rs 2,44,824 crore (US\$ 35.03 billion). India is a country where there are over 250 million school-going students and the rise in internet dispersion is expected to help in the growth of the education segment. The number of colleges in India reached 39,931 in FY19. The number of universities in India reached 967 in FY21 (until December2020). India had 37.4 million students enrolled in higher education in 2018-19. Gross Enrolment Ratio in higher education reached 26.3% in FY19. Due to the recent unprecedented changes owing to the pandemic the higher education institutes in India are bringing in a lot of online programs/courses for the students to keep them engaged and continue with the learning. In India, the online education market is forecast to reach ~US\$ 11.6 billion by 2022("Education Industry Analysis - Indian Education Sector | IBEF," 2021).

In education, at all levels and for both formal and informal settings the usage of ICT has become more imperious to enhance efficiency and effectiveness. Education even at schools had to provide computer instruction to harness the maximum output by utilizing the profound technical knowledge and positive attitude towards this technology. Today ICT is being integrated into the educational process in various manners as e-learning, collaborative learning, blended learning, creative learning, evaluative learning, open and distance learning (R. C. Sharma & Mishra, 2015). The introduction of ICT in general and education, in particular, has enabled the teachers as well as the learners to satisfy their immediate teaching and learning-related needs. To substantiate this argument (Yashothapriya, 2010) has stated that various devices being applied under ICT are enabling the learner to immediately store, retrieve, manipulate and receive information according to one's needs. Pointing out the vast area and activities included in the term ICT, (Roy 2015) stated, "ICTs are electronic collection, editing, storage, distribution and presentation of information."

OBJECTIVES OF THE STUDY

To synthesize the role of Information and communication technology (ICT) in teaching and learning with respect to the Indian education system and to find the avenues for further research.

RESEARCH METHODOLOGY

A narrative review approach was adopted, thereby allowing for the inclusion of qualitative evidence (Dixon-Woods et al, 2004). To overcome the inherent limitations and criticisms in the absence of a defined process for narrative reviews, the review used a systematic search approach, critical appraisal of included research, and a transparent review process. (Pope et al, 2009).

This paper is intended to give an insight into a critical literature review on the role of ICT in teaching and learning in India. The study aims at revealing the basic research methodologies/approaches followed, problem areas, and requirements for the inclusion of ICT in teaching and learning in the education system. The review research includes a taxonomy study and a comprehensive analysis of the techniques, approaches, and conclusions of these works, as well as publications from key journals connected to the issue. The methodology followed during the conduct of this research included started with anextensivesearch on the articles lying at the juncture of ICT, Teaching, learning, education systems across the world, technology innovations, e-learning topics and then screening the list to have a focus on ICT impact on teaching and learning.

- 1. During the extensive research of articles around 1500+ research articles/papers and theses were discovered, with 300+ of them from India. This analysis comprised 30 review articles all of which had a significant impact and substantial contribution.
- 2. Relevant studies published between 2002 and 2020 were identified using various databases out of which the most prominent ones were:ProQuest, Research Gate, Google Scholar, EBSCO etc.
- 3. The authors carried out study selection, data extraction, and synthesis separately, using a defined methodology, and conflicts were addressed by consensus.(Vincelette, Thivierge-Southidara, & Rochefort, 2019).
- 4. Thematic analysis was used to summarise and characterize the main concepts and the role of ICT on teaching and learning.

FINDINGS AND DISCUSSIONS OF THE STUDY

- 1. (Tilak, 2020) has stated that although there has been tremendous growth and reforms being done in the Indian higher education system it is still facing several challenges from various sources institutions, the force within the country and from global forces. The higher education system in India is going to enter a phase of massification. There has been a substantial improvement inequity in higher education. Although there are many noteworthy growths in the higher education system in India at the same time it comes with its own galore of problems. While the higher education system grew very rapidly in terms of numbers, only one-fourth of the young population enrolled in higher education. The current enrolment rate of 26% is insufficient; a threshold of 40% is required to enter the next stage of economic growth. The differences between rural and urban areas and the inequalities between various higher education regions and states are high and the change in all of these inequalities is modest. The most recent concern uncovered was that it is widely assumed that India's higher education quality and standards are deplorably low and decreasing in general. With the goal of creating a long-term strategy and plan for the development of India's higher education system, the system requires significant reform in order to address these many issues.
- 2. (Dhawan, 2020)has done a contemporary study on the changes which affected the education sector in India due to the pandemic. The author has stated that online learning or E-Learning wasn't that much prevalent in Indian education sector and because of the pandemic many educational institutes were forced to practice online learning. This paper has examined the SWOC analysis of e-learning modes. There are numerous issues tagging along with the online education such as connectivity problems, less engagement of students, difficulty in understanding the instructions but along with all these issues there are lot of perks which comes with online learning. One of the key solutions is to humanize the learning process and make it more dynamic and interactive lesson plans. Through online instructions, institutions must focus on pedagogical concerns and promote collaborative learning, case learning, and project-based learning.

- 3. (Dubey & Piroska, 2019) has investigated on the different factors which affects the motivation of the learners towards e-learning. E -learning has changed the dynamics in the area of education. There are various e-learning platforms available online but the one common factor found in these are that there is a high rate of dropping out of these courses from the learner's side. Exploratory research has been conducted to find out the various factors which affects and overcome these to enable a more ICT enable learning for the learners. Distraction, physical and technical factors are the main factors which mostly contribute to the motivation level. There should be a sound connectivity available with all the learners and that is the most common factor for the hurdle in completing the courses apart from the language barriers.
- 4. (Pathak & Vyas, 2019)In the current period of education, E-Learning is the most recent type of information and communication technology (ICT) used to improve and expedite teaching and learning. It is a well-known truth that education has touched almost every corner of the globe, and that ICT has become a vital component of everyone's life. E learning offers a wide range of applications and accessibility to students for 24 hours a day, seven days a week, where anybody may attend class from anywhere and at any time using various communication protocols. The authors looked at three aspects of e-learning: advantages and disadvantages, as well as the future of e-learning. E-Learning has transformed the dynamics of educational material in India and has created new possibilities for education.
- 5. (Kundu & Dey, 2018) has done a contemporary study on the flourishing e-learning scenarios in India. E-learning as term comprises of various terminologies such as online learning, web-based learning and technology delivered instruction. With the evolution of internet or digital technology the field of education has been able to communicate and channelize the distant learners with their learning resources. There have been various developments in India with regards to e-learning such as MOOC's, E-Gyankosh, NODLINET, Setting up ICT E-Learning Centres in 204 schools in Srikakulam district of Andhra Pradesh and many more. E-learning has a promising future in India although it is highly unlikely to replace traditional learning. The two aspects should be at tandem in order to be effective in nature. Content, delivery and access will be the three main agents which will shape the online education in India.
- 6. (Palvia et al., 2018) has opined that online education has been gradually rising worldwide in its various ways due to the confluence of internet usage, emerging technologies, and stepping up a demand for a regularly educated workforce for the digital economy. Holistic model was used to analyse the status of online education in five different regions of the world with a focus on country level factors. Since India is a developing country there has been an impetus in the growth of online education with the active participation of government at all levels. It is suggested that there should be a blended or flipped education. Lastly there is no one model which can fit for all countries so it's better to understand the cultural diversity, localisation and infrastructure to be the top priority to emphasise on the educational imperialism.
- 7. (**Kundu, 2018**) has conducted a case study to investigate the role and willingness of Indian teachers in the adaptation of technology in education. The two factors which can cause a barrier for the transformation in digital education will be teacher role and their computer competency. In the current 21st century to meet the demands of the education they require a new form of teaching

concept which will include educational professionalism and eliminate the traditional norms of way of teaching. It is important to nurture a new environment which can support the change in the educational structure and embed the strategy of combining technology and teaching in the way of learning.

- 8. (Sahay, 2018) in the study "Investigating Teachers' Perspectives Toward ICT Integration in Classrooms in Delhi, India" has done a survey study on teachers of government school who had implemented American India Foundation's Digital Equalizer (DE) program for the academic year. It has measured the teacher's attitude, knowledge, decision and practice of ICT in teaching. it is understood from the study that to ensure effective implementation of ICT integration in classroom the teachers would have to focus on developing and advancing their skills and knowledge exponentially.
- 9. (Suresh, Vishnu Priya, & Gayathri, 2018) has attempted to study on how academic performance can be impacted by e-learning. In the current era where technology has made a vast advancement every learner has a control over the content, time and the sequence in which learning can be done. One of the disadvantages found was that not every learner has access to online learning especially for the ones from rural areas. The duration and the time frame involved in e-learning is much quicker than the traditional classroom-based instruction. It was suggested that learning with new technologies has inculcated an interest among the students. Learners has preferred online learning over traditional classes as it is more convenient and can easily earn a degree or a certificate in the field of their interest.
- 10. (Kaur & Singh, 2018) Information and technology has been viewed as mechanism for change and provides a way to rethink and design the educational systems for providing quality education. The study has been conducted on secondary school teachers' attitude and beliefs in implementation of ICT tools in the classroom. There has been no significant difference in the gender while using ICT tools and it was found that usage of ICT while teaching is insufficient and inadequate. One of the main issues faced by teachers in India were poor infrastructure, lack of technical support and content related training. Since teachers' attitude and expectations are crucial to the effectiveness of implementing an innovation, it is necessary to determine how teachers view this innovation and its effectiveness as a resource for successful teaching and learning.
- 11. (Babu & Srivedi, 2018) This study has investigated the importance of using e-learning in teaching-learning process in higher education. It is very significant for all the institutions of higher education for the utilisation of Information and communication technologies. This paper has examined and given a narrative review of the various contributions made by scholarly researchers on the concept of e-learning and the usage of e-learning in the higher educational institutions(Babu & Srivedi, 2018). It was observed that e-learning has grown with great potential in the higher education and it was also noted that the students who have used e-learning performed better than the students who used the traditional methods for learning. To realise this potential, e-learning initiatives should make every effort to meet the requirements and concerns of all stakeholders.
- 12. (SR & Sureshkumar, 2017) has attempted to study the challenges and opportunities of ICT in higher education. Since there has been an exponential growth in number of students for higher education; the focus should be on providing quality information and learning process and also to

ensure that they understand the concepts in a simplified manner with the use of technology. One of the main advantages of using ICT in higher education is empowering quality education and boost the learning habits of the individual. The main challenge faced by higher education is the cost incurred for replacing ICT in the traditional process. Lack of infrastructure, disinterest from management for implementation of ICT, regional problems like internet service, power outrage are the key factors which can cause a roadblock in the path of ICT integration in higher education. ICT enabled teaching-learning should be empowering the teachers to use new innovative methods for acquiring knowledge and provide real-time solution by using different tools and resources.

- 13. (Jha & Shenoy, 2016) in the study entitled "digitization of Indian education Process A hope or Hype" has opined that educational system has inevitably developed from Guru-shishya method of conducting classes in an open space to presenting form of teaching with the aid of LCD or online lecturing. Indian educational system has made an impressive effort by following the trend of digitization in the system I.e., today students can order books online, or refer some materials and can have group discussion forums virtually which will enhance their skill development. By the year 2020 India is poised to be the world's largest tertiary -age population. The author has also discussed about the various E-learning or cloud computing tools which has enhanced the future of education in India. Although there have been various advantages due to digitization in the field of education there is still a gap of the objective not met i.e., merely putting up the technology at the forefront will not be sufficient if the learners are not empowered by the use of it. The rationale behind the impact of technology and education has to be clear and precise in nature. The author suggested that there should be a hybrid model combination of physical presence of the teacher and technology.
- 14. (Mishra, Sharma, Sharma, Singh, & Thakur, 2016) has developed a scale to measure the attitude towards open educational resources. OER have been prepared for different learners in a specific situation. Usually, learning is tempered by teachers lack of expertise. The scale developed will aid the institutions to effectively use OER in teaching and learning and it will help them to identify the right attitude to be used in future. Policy makers can have a better vision and handle the situation keeping in mind of the ground factors and implement OER strategy.
- 15. (Dulkaman & Ali, 2016) Learning Management Systems has been one of the e-learning systems which has been successful in converting the traditional learning process to a digital process. It is a pedagogical platform based on web technology used to create content and share with the students. The main objective of the study was to find out the factors which influenced the success of LMS on the academic performance of students. The system is effective in helping the students perform better in their academic if the instructors use the medium to guide them virtually. Students' motivation level and ability to use the LMS effectively is solely depended on the instructor. The institutions and instructors need to have a good knowledge in handling the LMS so that they can encourage the students to use it effectively for the academic purpose.
- 16. (Ghavifekr, Kunjappan, Ramasamy, & Anthony, 2016) in their study have focused on the issues and challenges faced by teachers incorporating ICT into teaching-learning process. It was found that there is a high-level impact of challenges using ICT tools while teaching in the classroom. There are certain barriers which are extrinsic in nature which includes lack of resources, time, access and technical support. The teachers have used ICT tools to demonstrate

The Role of ICT in Teaching and Learning with Special Reference to Indian Education System: - A Narrative Review of the Literature

and present the content and kept track of student's progress. In order to enhance learning outcome of student the barriers need to be addressed by the policy makers and management.

- 17. (Pande, Wadhai, & Thakre, 2016)E-learning is one of the effective mode of disseminating of information and an efficient method of teaching and learning which makes use of ICT to interact and collaborate in a learning environment. The level and impact of e-learning varies in our life from stage to stage. This study has focused on the current situation of e-learning in India and its future implications in the field of education. Compared to developed countries the growth rate for e-learning in India is stagnant and not much has increased in the education field with the discomfort and less training given with respect to online tools and technologies. Although e-learning has a huge potential in India, the adaption to this is very slow as there are many barriers for incorporation into the education sector. Some of the barriers faced are technical support, lack of training, network issues and adaptation and continuation of the process. Indisputably, e-learning will continue to grow as the technology is becoming a larger part of everyone's life. With respect to that every stakeholder in the education sector such as Governments, business companies and professional associations can begin to focus on bringing new improved applications and implementing and providing training with regards to various ICT tools in anticipation of the expansion in the sector.
- 18. (Mbabazi & Ali, 2016) has observed the e-learning management system used by the lecturers and students of Ugandan Universities. Learning management system helps to create a platform for a range of users including teachers, students for easy accessibility of materials and management of the same. This study has evaluated the student's perception and attitudes for the acceptance of technology in the learning process. It was found that students have a positive attitude towards the use of learning management system as it is more reliable and efficient for learning. Some of the problems found while using the system were technical issues, accessibility, lack of training and quality of the courses offered. In order to ensure that LMS can be fully embraced by teachers as well as students there should be certain measures taken such as user-friendly systems, providing training and accessibility to all the users.
- 19. (Islam, Beer, & Slack, 2015) in the study has opined that although e-learning benefits has been emphasized there has been a very little research done on the disadvantages of e-learning technology. This study was conducted by reviewing various articles and has narrowed the limitation into 5 categories of challenges that are faced by instructors. The five main challenges were Learning style and cultural changes, pedagogy, technical support, training and time management. In order to successfully implement the e-learning outcome these five challenges are to be addressed and it can be done by Efficient in Technology, a stable e-learning environment, provide a high level of assistance and direction ,clear policies, to encourage students towards e-learning and most importantly it should be on a practical basis. The challenges are correlated to each other and if one of the challenges are not faced effectively the overall delivery of the outcome can be hindered.
- 20. (Sawant, 2015) in the study "Use of ICT in Teaching, learning and Evaluation" has opined that use of any kind of ICT tools into teaching pedagogy adds up to the creation of an interest among the students for learning. Teaching-Learning and evaluation is the base of education system. The author has explained the use of ICT integration by adapting that into a language subject which has made a positive impact on the learning abilities of the students. Promotion of collaborative

learning, time saving, group discussion or preparation for seminars are some the areas which can be relatively used for improving the quality in learning and enhance the knowledge.

- 21. (Mothibi, 2015) has conducted a meta-analysis study in the relationship between e-learning and students' academic achievement. E-Learning has considerably become an approach in the field of teaching and learning, development of skills and other functions as demonstrated by the huge advancement in the web technologies. Online learning has sought to be predominantly an effective instrument in training due to its convenience and efficiency in accessing and processing the information. The incorporation of ICT into the delivery of content and information in different textual and visual forms have enhanced in the learning and academic achievement of the student.
- 22. (Kumar & Bajpai, 2015) has studied on the relationship of achievement motivation and academic performance due to the impact of e-learning. The sample study was taken from 10 colleges comprising of 110 students. It was found that high intelligent students tend to show higher degree of achievement while compared to the lower group. There has been no significant difference in the socio-economic status due to gender in academic performance of the student were gender, socio economic status and intelligence. It was suggested that e-learning can enhance economic outcomes and reduce in the cost of education of a student. Different learning styles has to be imbibed to benefit and aim at developing strategies for engagement in e-learning.
- 23. (**T.M., 2015**) the author has mentioned the various dimensions of technology strategies used in the teaching-learning process. In this 21st century education plays a very vital role and technology has helped in various ways to achieve a learner's capability. There are various dimensions a teacher can incorporate to enhance the learning process. Ubiquitous learning has fulfilled the bridge of e-learning wherein learning can be done at anytime, anywhere and any context. The transition to a more collaborative and blended learning has to be initiated by the higher education institutes to be in par with the growing economy and changes all around the world.
- 24. (Gupta & Singh, 2014) has opined that although there have been initiatives taken to incorporate E-learning in the education field in India; it is still faced by many challenges. The study has been conducted to identify the current status in the curricula of education. The teachers are all equipped and skilled with basic knowledge of computers but it is still not incorporated due to lack of infrastructure facilities. In order to develop and make use of the tools in a practical manner they can be encouraged to make advanced PPTS, content created in OER and Moodle.
- 25. (Azimi, 2014) has investigated the need assessment of e-learning among the students for B.Ed. programme in the university of Mysore. From the study it was observed that there is no significance difference in e-learning components for male and female students. The main component in e-learning was identified to be the knowledge of internet navigation tools while mobile technology was ranked the least. The students as future teachers should be conscious about the potential usage of e-learning technologies for enhancing the learning process.
- 26. (Milan, 2013) in this study different age groups were studied for their influence on the usage of ICT. It is evident that the millennial generation and Generation X have different ideologies and

The Role of ICT in Teaching and Learning with Special Reference to Indian Education System: - A Narrative Review of the Literature

attitude while using ICT. It is observed that millennial generation people are more into the internet and technology and they are active experiential learners.

- 27. (Arulchelvan, 2012) has conducted a survey study which determined that E-LMS implementation can significantly show a difference in the student learning and performance in their academics. The learning management system has aided in the documentation and determination of the overall academic performance of the students. The major findings found was the reduced absenteeism ratio due to the implementation of LMS. The interactive and collaborative nature of the system has developed the teaching and learning aspect of the teachers and students respectively. It is further suggested that execution of LMS in the education field can be done in a larger scale in India so that the integration of technology and learning can go hand in hand.
- 28. (Shamsu, 2012) the focus on the study was the major initiatives taken by government of India outlining on the technology-integrated education. The term ICT has a broader perspective which comprises of a diverse set of technological instruments and tools used to produce, store and communicate information. Implementation of ICT in India is relatively slow compared to other countries; which means they need to focus on the strengths and weakness and make a collaborative effort to ensure ICT implementation on a nation-wide to be successful. It is also suggested that in order to make the vision of ICT enabled education all across the nation without any disparities, the government should put forward a plan to conceptualize, offer wide range of online courses and also translate these courses in local languages to reach out to maximum number of students in the country.
- 29. (A. Sharma, Gandhar, Sharma, & Seema, 2011) the appropriate use of ICT can transform the entire teaching-learning process which results in a paradigm change in both content and teaching methodology. Delivery and dissemination of information has completed changed in the new environment of interactive learner centred approach. Some of the few emerging learning and ICT tools are blogging, Integrated Learning Modules, a pod cast, Wikis, Enhancement of Browsers, e-learning, M-learning(A. Sharma et al., 2011).
- 30. (**Krishnaveni & Meenakumari, 2010**) has attempted to study on the various factors which contributed to ICT based teaching-learning process. The factors which correlated to ICT based teaching -learning included existence of e-learning, usage of technology for research, supplementing information to support the study and interaction and access to discussion forums. The study also revealed that the educational institutions needs to develop virtual libraries. The major area which needs to improve the application of ICT tools is examination and evaluation as they still follow the traditional method.
- 31. (Kira & Saade, 2006) has explored the various dimensions which affects the online learning. The main rationale behind this paper was to find out the factors which is related to the success/failure of online learning. An exploratory factor analysis approach was employed to analyse and test the validity of the online learning dimensions. The six dimensions that were explored through this study were Affect, Learner's Perception on the Course, Attitude, Perceived Learning outcome, Intrinsic Motivation and Extrinsic Motivation. In order to help the learners, perform better in their learning process the instructors need to identify and understand the dynamics of an online learning tool and a potential key element of it which can enhance the learning experience.

32. (**Dellit, 2002**) the growing application of ICT in teaching -learning has accelerated in the core area of education. The author has investigated on the contribution of ICT in the quality of TLE through various factors such as pedagogies, culture and cognition. The quality in education depends on specific local factors, cultural settings, values and communities. ICT can significantly have a positive impact on education by improving data for diagnosis and formative evaluation.

CONCLUSION OF THE STUDY

This paper has identified the growing and numerous reforms taken into the context of Indian education system with regards to the implementation of use of ICT into the teaching and learning process. It has also identified various methodologies, context and tools which have emerged from the review of literature. The main idea from this paper was to contribute to the further avenue of the research around the role and impact of ICT in teaching and learning with respect to Indian higher education system. In summary the results of the present study shows that the use of digital technology and use of various ICT tools is emerging exponentially by the teaching fraternity and students all across the country especially during the last year due to the pandemic. These technologies, tablet and smart phone applications become more and more popular among the higher education students (Nunes Cruz, Sousa, Martins, Cruz, & Martins, 2017).

Digital learning uses technology to strengthen the student's learning experience with a mix of tools and practices, including, among others, online and formative assessment; an increase in the focus and quality of teaching resources and time; online content and courses; and applications of technology in the course curricula. Finally, digital learning promotes deeper learning allowing personalized competencies development of the students with deeper learning possibilities and extended access to information and knowledge.

From the study ICT is more prevalent in the urban areas rather than the rural areas owing to the less experience and reach of technology in those areas. In order for all the educational institutes to make use of ICT in teaching learning process the stakeholders have to instil an interest and bring new technologies and modes to enhance the user experience. Furthermore, it has also been observed that the adoption of ICT or any online learning tools are still stagnant or have less impact in India with compared to that of the developed countries. Due to Covid 19 pandemic all the educational institutions were forced to go for online learning which was difficult in the initial phase due to the less exposure to technology and tools.

Information and communication technology are vital facet in today's higher education. There is no doubt that with the introduction of ICT in education, it has paved a wave of technology rich learning environment. ICT helps in providing a clear and concrete concept of the content to the learners and make it ease and understandable in less effort and time (Kundu, 2018). With the present scenario the traditional method of teaching-learning is not sufficient for enhancement of knowledge for both students as well as teachers. The further study should be focused on understanding to what extend the ICT plays a major role in educational institutions, how the various factors of students and teachers for integrating ICT in Teaching -learning process has enhanced the quality of the same. It will help to support policy makers, management and also teachers in understanding ICT tools

effectively. It will also provide an opportunity to compare theviews of teachers, students and management for the use of ICT and whether it has improved the experiential learning for them.

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