

COVID – 19 AND USE OF ICT IN TEACHING – LEARNING & EVALUATION

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Abstract

The year 2020 had really disrupted the routine in the lives of the people. The new virus known as novel coronavirus had halted not only the economy but education sector also affected. The traditional classroom confined to four walls with blackboards is radically replaced by technology.

Most of the educational institutes and students in our country were unprepared for digital learning. The pandemic period forced teachers to adopt virtual teaching where they had to use ICT tools, sometimes for the first time, to facilitate their students' learning and enriching student's life. The teachers during the lockdown period adopted themselves, learned use of ICT tools, and became the source for smooth transition from offline teaching to online mode.

Thus there is a paradigm shift from offline teaching to online teaching post COVID. This paper aims to present the COVID-19 pandemic focusing on teaching and learning imparted online through digital technologies.

Keywords: novel coronavirus, technology, digital learning, ICT tools

Introduction

The new disease Coronavirus disease (COVID-19) is caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. The COVID-19 had really disrupted the routine in the lives of the people. It had halted not only the economy but the education sector as well. Apart Economy, the Covid-19 pandemic has created a lockdown and led to educational institutions closures not only in India but also around the world.

It also brought changes in teaching-learning process. In India before COVID-19 pandemic, the educational system in general mostly has followed conventional methods confined to teaching classes. But due to the pandemic situation, all educational institutions get closed and the traditional teaching-learning process stopped. The closure of educational institutions has forced us to 'think out of the box and come up with innovative solutions in order to deliver teaching and make sure learning can continue. To minimize the loss of learning while educational institutions were closed, teachers sought to provide alternative learning opportunities.

When educational institutions were closed because of the COVID-19 pandemic, teachers had no other option but to change their classrooms into online mode. In this regard, ICT tools emerged as a savior and come to help teachers and students. Teachers adapted to new technologies and shifted to online classes hence education system got back to its trajectory.

Nowadays teachers are teaching the students through an online mode of teaching through diverse apps such as Zoom, Webex, Microsoft, Google meet and many others. students were also adopted to learn online during the closure of educational institutions during the pandemic time. So the traditional method of teaching confined to four walls is drastically replaced by Information and Communication Technology(ICT).

The primary objective of this paper is to present the COVID-19 pandemic focusing on the use of ICT to attaining the teaching-learning process more effective.

ICT is very much helpful not only to the teachers but also to the students. Due to the ICT tools, the teaching-learning process has become easier and plays a vital role. ICT tools have made teaching and learning collaborative instead of the traditional teaching and listening approach. ICT bridged the gulf, resolved the problem of distance and retained the process of learning.

The pandemic period forced teachers to adopt virtual teaching where they had to use ICT tools, sometimes for the first time, to facilitate their students' learning and enrich student's life. The teachers during the lockdown period adopted themselves and learned the use of ICT tools and became the source for a smooth transition from offline teaching to online mode. But access to use of the internet and electronic devices became the main obstacle.

Before the lockdown in the country, students could avail their education through offline mode and the mode of teaching was also simple. But owing to the COVID-19, it has become very difficult for the students, especially in rural areas due to the inaccessibility to the internet and electronic devices. poor students are badly affected after closing the institutions during the pandemic.

Effects of Covid-19 on teaching-learning

1. Online education: Due to the Covid-19 lockdown, there is no option except online education. As lockdown doesn't allow to open educational institutions.
2. Use of different e-content: owing to the online education there is no time limit and place restrictions for learning. Any student can learn from any home or from any place and at any time. Teachers by using ICT tools different e-contents are prepared to enrich students' knowledge.
3. Usage of educational Apps increased: a variety of Apps are used for online education. These apps are very much useful for students and teachers to interact and collaborate in the online teaching-learning process. Eg. Zoom, Webex, Google Classroom, Seesaw, Kahoot etc.
4. Platforms for online education: Many platforms are available for online education. Through these platforms, not only online classes can be taken but also recorded videos can be uploaded. So these platforms are helpful to the teachers as well as students in the teaching-learning process. Eg. Youtube studio, Swayam, Webex 4 etc..

With the Covid-19-like situation, many State Governments realized the need of improving the quality of education through the use of Information and Communication Technology. And pursuing an online course is an exceptional option in education, particularly when traditional classes are not allowed, this is the only option available.

Society for Telangana State Network (SOFTNET) is an initiative from the Department of Information Technology, Electronics and Communications of the Government of Telangana State to provide quality education harnessing the potential of satellite communications and Information Technology.

Our Telangana State Government has started the T-SAT digital classes by using GSAT-8 satellite to all sectors of people in the state wherein the most experienced and best of the faculty teaches the topic and students can learn from home, this made learning easy and has helped the students in distance learning by providing live interactive lectures. Mana TV is also offering coaching classes for IIT, NEET and EAMCET to benefit the students who can't afford private coaching.

E-learning provides an opportunity for students to learn from any place, which is most convenient for the students. Students can obtain learning material and guidance online. Online education provides many advantages because it allows flexibility and adaptability.

Advantages of Online Education

5. Online education allows students to learn to increase their knowledge and perspective.
6. It reduces nervousness among students, as many can communicate more through online education than in regular classes.
7. One can learn from simply any place as long as they have an internet device.
8. It offers a chance to study at students' own speed as there is no hurry.
9. And the online study is usually enjoyable and more comfortable compared to traditional classes.
10. It saves time and avoids travel to a particular destination every single day for learning.
11. Online education generally is more affordable and comparatively cheaper in comparison to traditional education.
12. Virtual education offers both the wealthy and the poor the same opportunity to learn.
13. In online education, if there are any variations in the syllabus, updates can be done instantly compared to conventional means of education.
14. Online education can also help one to be part of a different group of people from varied sections of society.

15. The subject matter is always more and readily available on the internet, unlike traditional education.

16. Online education through digital mode helps the students to be more active in learning the lessons because technology is widely used and is easy to understand.

Besides advantages, online education also has some major drawbacks such as
Disadvantages of Online Education

17. It can cause vision problems as the students need to sit near the screen for long hours.

18. Online education may also hinder students' physical development.

19. Online education can be somewhat complicated for a student who is not self-motivated to learn, for them someone who needs to drive to study.

20. using the computer too much can make the students prone to plagiarism.

21. Online education detaches the students from their classmates.

22. There are many distractions on the internet that can interrupt learning.

Online education has both advantages and disadvantages, but it is an exceptional method of learning that can help to continue the studies and improves the student's performance.

Information And Communication Technology

This is the age of Information dominated by Digital Technology. Digital Technology has influenced all aspects of human life. Education is not an exception. The networking of computers gave birth to Information Technology (IT). Information Technology led to the development of Websites and teachers had started uploading the information on their websites. It provides facilities for Chat, e-mail, surfing, etc. It opens up a new source of information which increased the limitation of access to information to the students.

The three words Information, Communication and Technology have their own separate meaning. But, the meaning of the three words collectively, ICT is becoming an integral part of daily life. ICT is very useful in almost all areas of human life.

The ICT = IT + Other medias opened new paths, like e-learning, Virtual University, e-coaching, e-education, e-journal, etc. Third Generation Mobiles also became an integral part of ICT. Mobile is being used in imparting information rapidly with cost-effective.

The use of ICT enables and allows the students to access more relevant material for learning the subject matter. It has provided an opportunity for the students to get the information. It has broken the monotony and provided variety in the teaching and learning situation. The ICT being the latest, it can be used in the following areas:

Use Of ICT in Teaching And Learning

ICT can be useful for a teacher to impart knowledge and wisdom in the following ways:

1. It is helpful to learn about various certification programs run by the reputed educational institutions across the globe for the professional development of the teachers.
2. It is helpful to increase the domain of knowledge through the use of ICT.
3. It helps a teacher to learn innovative methods of teaching
4. It helps to participate in various training programs which are essential for the professional development of teachers
5. ICT helps a teacher to guide the students about the learning materials available on the internet for better learning of subject concepts.
6. It also helps to study curriculums of different institutions for framing new curriculum which leads to achieving the objectives
7. ICT also provides live online interaction facility for the students and teachers to exchange their ideas and views, and get clarification if required on any topic.

ICT is also can be useful for the students in the following ways:

- It helps to understand the concepts and students can study through online resources. It is a well-known fact that not a single teacher is capable of giving complete information. The ICT

can fill this gap because it can provide access to different sources of information in different formats with different examples.

- Flexibility is a must for mastery learning and ICT provides flexibility to learners which is not possible by the traditional method of teaching. Students can learn from their place and at any time.
- Students can meet teachers online and get clarified their doubts about the subject.

In this way, ICT tools are helping teachers as well as students. And the use of ICT in today's scenario is very much helpful to continue the study.

Use of ICT in diagnostic testing

Nowadays the quality of teaching in the classroom is on the decline due to various factors like large class size, and the non-availability of diagnostic tests. More and more students are depending on the private tutorial classes. Private tuition also has become a great business model. Some students fail to understand certain concepts. This type of difficulty can be easily overcome with the help of ICT.

Though there are a few limitations of Computer-Based Diagnostic Testing (CBDT), like power cuts and the learner might find it monotonous, tedious as compared to traditional tests Computer-Based Diagnostic Tests work well and helped the teachers as well as students in identifying the gray area of every student and helps to improve student's performance.

Use of ICT in remedial teaching

Once the ICT is used for diagnosis purposes, the next step the Remedial Teaching can be done by the teacher if some common mistakes are identified.

Use of ICT in evaluation

The ICT can be made use in the evaluation. The student can instantaneously get feedback about the status of his understanding after attempting the computer-based examination. If the answer is wrong, he even can get the correct answer. It goes a long way in improving learning and the teacher has no role to play in it. It can be used for internal assessment. Thus, ICT can be used to improve the evaluation.

Use of ICT in developing virtual laboratory

Laboratory always helps in developing scientific temper. But the fact is that practicals are not done by each student. Sometimes if the laboratory is available, the instrument is not available. The students are not given the freedom to do experiments on their own.

Some good Institutions have laboratories. They allow students to play with the material available in the laboratory under the supervision of a teacher. The teachers also make use of laboratories during their teaching.

However, there are many restrictions under which the students have to work in the laboratory. Now it is possible to have a Virtual laboratory. Once it is developed, it can provide lots of freedom to students. The students can manipulate any variable related to the experiment and can see how it affects the outcome.

The Virtual Laboratory can be developed using ICT. It may be made available at the doorstep of each and every student by uploading it on the Website.

Use of ICT in online tutoring

Digital technology has broken the boundaries. Now, online tutoring access has become easy due to ICT. In Online tutoring the students stay at their home and log in to their tutor through the use of the Internet and software.

The student asks the question and the teacher replies it by writing on a soft board or using a PowerPoint presentation. This interaction is normally one-to-one. It has made the academic life of many students easy.

Use of ICT in developing instructional material

At present there is a shortage of qualified and competent teachers and the instructional material available in the print form is also not of quality. The book reading is not very enjoyable and does not help students in understanding the concepts and retaining the information. Many teachers are well known for the specific subject. Their lectures should be digitalized and made available to all the users. It will enhance the quality of instruction in the classrooms. The teacher can use them in the

classrooms and can organize discussions after it wherein the new points can be added both by the teacher as well as students. It will make the teaching effective, participatory and enjoyable.

Conclusion

In the present scenario, it is essential to assess the student's academic, and also their emotional needs. Because many of the students would have experienced trauma as a result of the impact of the pandemic on them and on their families. There is a need to develop a capacity for blended learning that incorporates face-to-face learning and online teaching while using ICT tools. These approaches need to achieve an adequate balance between online and offline and cultivating student independent learning for their better future and also by providing appropriate technological infrastructure for promoting a blended mode of teaching and learning in the educational institutions is the need of the hour.

References

1. Baker, J. P., A. K. Goodboy, N. D. Bowman, and A. A. Wright. 2018. "Does Teaching with PowerPoint Increase Students' Learning? A Meta-analysis."
2. Clem, E. T.: An analysis of the effect of Computer and Non-computer Tutorial Programmes on the Academic Achievement of high School Junior students in a selected school District in a Southeast Texas. Dissertation Abstract International, Vol. 51, No. 7, 1990.
3. Pandey v.c. (editor), 2004, Information and communication technology, Delhi, Isha books.
4. Saxena Jyostna, saxena Manojkumar, Gihar Sandhya(2009),ICT in professional Education ,New Delhi, A.P.H. Publishing corporation