

ICT and Online Resources of Teaching Learning Process

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Abstract

During the past few years, information and communication technology (ICT) has changed Our daily activities in many ways. The ICT has revolutionized teaching–learning process. One of the goals for integrating ICT in education is to enhance teaching-learning practices Thereby improving quality of education. Considering that ICT plays an increasingly Important role in society, especially if we take into account social, economic and cultural Role of computers and internet, it is clear that the time has come for the actual entry of ICT in The field of education. The combination of ICT and the internet certainly opens not only many Opportunities for creativity and innovation, but also for approaching the teaching material to Current generation of students. Technology saves time and gives students access to powerful new ways to explore concepts at a depth that has not been possible in the past. The growth of These communication and computer systems, their ease of use, the power and diversity of Information transfer allow teachers and students to have access to a world beyond the Classroom also interact with each other over a world geographic distance in a meaningful Way to achieve the learning objectives. It has the potential to transform the nature and Process of the learning environment and envision a new learning culture. Interactively, Flexibility and convenience have become the order of the day in the ICT supported Environment. ICT helps the learner to share learning resources and spaces, promote learner Centred and collaborative learning principles and enhance critical thinking, creative Thinking and problem solving skills. ICT based education is definitely the direction towards which the whole world is progressing.

Keywords: ICT, education, teaching-learning, technology, computer ICT and online resources in teaching learning process

The appearance of new technologies in our day to day has made it possible for the use of ICT in education to increase considerably in recent years. ICTs have gained great relevance in our environment, having a wide catalogue of applications in various sectors such as entertainment, administration, robotics, education and all kinds of companies.

Specifically, in this blog article we would like to analyse the impact of the use of ICT in education and we will begin by understanding the term ICT.

Meaning of ICT:

When we talk about ICT we are referring to information and communication technologies. If we had to define the term, surely we would do it as “a set of techniques and devices based on new

technological tools and the different supports and channels of information and communication". To this we could add the process of obtaining, storing, processing and transmitting information digitally. The notable increase in the social use of ICTs and their enormous impact is an aspect that cannot go unnoticed in the world of education. ICT is already becoming a fundamental tool for new teachers and students in the classroom.

ICT in Education:

The use of ICT is so widespread in society that classrooms should not be less, however, children and young people must be taught to use them consciously and safely. The educational sector must assume the responsibility of gradually implementing all the technologies that may favour student learning in some way, and ensure that they learn to use them in a world where they are already part of professional life and their social environment.

Most used technologies in the classroom

- Weblogs and social networks: it gives us the possibility of creating work groups where students expose or discuss different topics, publish content related to the subjects, etc.
- Planning through tools: calendars and task managers are very useful to schedule exams, deliveries, create workflows, etc.
- Data storage in the cloud: it allows us the possibility of working collaboratively, accessing from any device and from any place. Some of the tools that use this technology are office packages, storage, etc.
- Digital whiteboards and interactive tables: whiteboards allow projecting and controlling images from a computer, making notes and comments, and saving and / or sending the screen by email. The interactive tables give the possibility for the students to interact directly with the surface.

Benefits of using ICT in Education

In our previous blog article we already talked about the clear benefits of e-learning platforms for education. However, this time we will focus on the advantages of ICT in general.

It has been proven that the use of ICT in the classroom increases the motivation of the students, showing more interest and becoming more involved in the areas they study. ICT enables the use of innovative educational resources and the renewal of learning methods, establishing a more active collaboration of students and the simultaneous acquisition of technological knowledge.

Furthermore, ICTs are of great help in developing discernment. Being able to search for various sources and contrast them, as well as to structure information are some of the most notable skills that students develop thanks to the use of ICT. But there are more **advantages**:

1. **Their interest in learning grows:** the use of resources as varied as videos, websites, graphics, and games make traditional subjects more interesting. Multimedia content is a very useful tool to bring different subjects closer to students in a complete and entertaining way.
2. **Interactivity:** The use of ICT in the classroom promotes the student's active and participatory attitude, which is involved in learning and is positioned as the protagonist.
3. **Collaboration between students:** Collaboration between students is clearly enhanced thanks to various digital tools. It is much easier for them to create team projects, cooperate and learn from each other.
4. **They enhance creativity:** ICT tools stimulate the development of the imagination, as well as the initiative of all class members.
5. **Increased communication:** close communication between students and teachers is encouraged through various channels, in a more spontaneous and less formal way.
6. **Personalization and content up-to-date:** digital environments allow real-time updating of all information and resources. In addition, it is possible to adjust the tools and content to local and nearby realities.

ICT Tools For Teaching Learning Process

Following tools are used in the Teaching learning process in Online- Offline mode of instruction. During lockdown these ICT tools proved to be a boon for making the teaching learning process easy and accessible to all students.

1. Learning management system (MOODLE and Google classroom):

Moodle stands for Modular Object-Oriented Dynamic Learning Environment and statistics. Moodle is free software, a learning management system providing a platform for e-learning and it helps the various teachers considerably in conceptualizing the various courses, course structures and curriculum thus facilitating interaction with online students. It is configurable, highly-flexible, and feature-rich. RSCOPR has a self-customized MOODLE developed by Digital Content development team.

It is a very useful platform to share all learning resources, videos, sharing webpage. Moodle supports a range of media to present or link to learning materials, support the students and to assess their learning. It is able to provide automated assessment in the form of quiz, and give immediate detailed feedback to the students. The messaging system allows learners and teachers to communicate easily. Teachers can also communicate with groups of learners via course forums either to provide answers to learners' questions or to just get involved in discussions. The uploaded learning resources are available to the students whenever they want them. The MOODLE mobile app makes students access even easier via smart phone or mobile device.

2. Google Classroom - Blended Learning Platform:

Google Classroom is a free, blended learning platform that offers a variety of benefits for both students and teachers. Google Classroom enhances the productivity and take workflow management to the next level. It

keeps track of assignments coming in with a simple glance making it very easy to know everyone's status and to follow up with students who are missing work. Everything is time stamped, so late work is easily identifiable. Since Google apps are cloud based the work in Google Classroom saves automatically and is accessible from any device. With the app, both students and teachers can enjoy the full functionality of Google Classroom on a mobile device. Students receive notifications on their phone when assignments and announcements are posted, making it easy for students to stay on top of classroom happenings. As a teacher, the app enables you to post from your phone either right from the app or using share-sheet support.

3. Google Forms:

Google Forms allows to conduct MCQ quizzes online. The information is stored in spreadsheet automatically record the answers. The spreadsheet then populates the responses from the quiz or survey in real-time. Google forms can be used to give feedback to and receive feedback from students and parents.

4. Videoconferencing Platforms:

During COVID pandemic when the world shifted to Online mode for teaching learning various free videoconferencing platforms like Google meet, Zoom and Cisco WebEx were used to conduct online classes.

All these have varying needs and features. Zoom allows the facility of using its features using a browser also without the need to download the application, the app download is mandatory in case of the other two software. Zoom allows face touch up facility as well which is not present in the other two competing software. Google Meet allows the maximum on-screen chatting time with respect to the others. It has over 60 minute long conferences whereas the time cap of others is only 40 minutes. Zoom has the highest, that is, 49 people that can be viewed on the screen at once.

5. Virtual Labs:

The Virtual Labs provides remote-access to simulation-based Labs in various disciplines of science and engineering. This student-centric approach facilitates the absorption of basic and advanced concepts through simulation-based experimentation. Internet-based experimentation further permits use of additional web-resources, video-lectures, animated demonstrations and self-evaluation. Virtual labs are any place, any pace, any-time, any-type labs. It is a paradigm shift in student-centric, online education. Virtual labs sessions available on Virtual labs an MOE Government of India Initiative for Physical Pharmaceutics, Organic Chemistry and Inorganic chemistry subjects as well as Virtual labs sessions from Amrita lab portals for Microbiology, Organic chemistry and Inorganic chemistry practicals provide helpful tool to teacher during online teaching learning process.

6. Educational Videos and animations (YouTube and Internet):

Various valuable educational videos of pharmacy subjects available on internet, youtube provide additional help in better understanding of subject knowledge.

7. Smart Classroom:

Classroom integrated with Smart boards and internet connections provides enhanced and interactive learning and teaching opportunities for students and teachers. The internet-connected to systems in smart

classes is stored with abundant information. It is accessible anytime for their teaching and learning process. Teachers can access information from various educational sources for teaching purposes. It helps in easy access to online resources. Smart Classrooms helps in developing critical thinking and problem-solving skills in students.

7.E-Resources:

E- journals from Proquest Pharma and DELNET were available for students to access remotely in online mode and enhance their learning experience. e books were uploaded on MOODLE and Google Classroom. In conclusion the impact of Information Communications Technology on education has been an encouraging one because students are taught practical IT skill which can be used in working life as well. E-learning which plays a huge part in ICT in education, is rising in popularity year by year. Because of this people are beginning to go and learn on online courses such as Learn Direct and Web wise, whilst youngsters regularly use sites such as SAM Learning and BBC Bite size.

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