

ICT TOOLS

ICT tools enable the students' to high quality education by providing flexibility, accessibility and cost effectiveness in the resource utilization. It also encourages online mode of collaborating with each other by learning, creating, sending, receiving and arranging the educational content. Various ICT tools like LCD projector, Edmodo, Youtube animated videos, Moodle, Online compiler / simulator, Wordpress etc., are used by the instructors to facilitate the students. These tools are discussed here.

LCD PROJECTOR

The days with the use of blackboards filled with diagrams, equations, notes are gone away. The LCD Projectors have become a vital essence in the modern teaching system. They act as a visual aid to the students and teachers. They help the students to learn accurate structure through images. They also support the teachers' explanations with visual accuracy. This tool is used to display video lectures, to present the slides, to conduct quiz, webinars, or any other demonstrations.

Outcome

The use of LCD projectors in smart classrooms reflects many outcomes which are listed below.

- The students are able to gain a better experience through new way of learning by retaining their concentration during the whole class.
- Visualization of the contents enhanced the objective of the curriculum.
- The students are able to repeat the text content more precisely.
- Effective usage of class timings.

EDMODO

Edmodo is a digital tool which helps in virtual teaching and learning system. It provides virtual interaction between students, teachers and parents. The teachers can deal with their classes virtually and unite all the activities in one place. The Teachers can insert educational videos,

build groups, and organize calendar events. Through the community forum, the teachers can find and share information related to their subjects. The students can also get support from their peers, their teachers and they are able to submit their work for teacher's review and get their feedback instantly. The student can also participate in online discussion which motivates his interest and improves the learning outcomes. The parents can log on and review their ward's grade, work completion and any information from the school. The platform enables the teachers and students to share and distribute materials, assignment and questions through online. It provides a simple interface for easy interpretation of information.

Outcome

Edmodo tool help educators connect the power of social media to customize the classroom for each and every learner. The following are the outcomes of using Edmodo tool

- Edmodo is an effective solution implemented in the classroom in unifying learning methodology.
- Edmodo does not only facilitate the isolation of the tasks but also allows to attach a variety of file types, including Word doc, MP3, PPT, gif, PDF, Excel, jpeg, and others.
- It's easy and intuitive for all end-users.
- It also allows for customization of classroom based on the learners needs.
- It offers flexibility for teachers, students and parents.
- Provides a platform for timely and immediate access to teachers.
- Immediate follow-up to teachers and parental concerns.
- Has the capability of adding Mobile Apps for iPhones, iPads, iPods and androids.
- Would be excellent for visual learners.

YOUTUBE Animated Educational Videos

YouTube is not only the kingdom of digital entertainment but it can also be a great environment for learning. E-learning videos are a powerful tool which includes dynamic element to the e-Learning courses, improve understanding, demonstrate complex procedures, and help explain difficult topics easily. These animated educational videos improve creativeness in learners and they can explore multifaceted dimensions of knowledge.

Outcome

YouTube is not only the kingdom of digital entertainment but it can also be a great environment for learning. Idea-sharing website YouTube can provide unlimited opportunities to enhance eLearning and also help our audience achieve their learning goals and objectives as mentioned below.

- It is really easy to integrate
- It generates and promotes online discussion
- It is ideal for mobile learning.
- It allows for micro learning.
- It encourages the development of note-taking skills.
- It enhances comprehension of complex concepts.
- It allows learners to make their own YouTube videos.
- It can be used to create an eLearning community.
- Create webinars that learners can use as reference tools.

MOODLE

Moodle is a free software, a learning management system, online learning platform that facilitates the educators to create various courses, to interact with the students online, attach assignments and to keep track of the student's progress. It helps in managing a report on every student in a class. It is a more appealing interface for both the students and the teachers and it enables to chat with the students and participate in the discussions through forums. The users can note down the course deadlines, group meetings and other events through which they receive the alerts and notifications.

Outcome

Moodle is a user-friendly Learning Management System (LMS) that supports learning and training needs for a wide range of institutions and organizations across the globe. Outcome of using Moodle software is listed below

- **Moodle** supports a wide range of media to present or link to learning materials, support the learners and to assess their learning.
- **Converse and collaborate with peers** : Using the course forums, learners can discuss topics, share ideas and even feedback on each other's work.
- **Sharing learning materials** : With Moodle's *rich resource toolkit*, files and links to websites can be shared easily. Combining text, images and entrenched video can also be quickly created within a course.
- **Managing access to education materials** : *Grouping students into year or class groups* to automatically provide access to the appropriate learning materials.
- **Monitoring progress / Reports** : Its not necessary *tracking sheets in Excel*, Moodle stores each students scores from any graded activities.
- **Communicating with learners** : *Moodle's messaging system* allows learners and teachers to communicate easily.
- **Communicating and collaborating with peers** : Using the *course forums*, learners can discuss topics, share ideas and even feedback on each other's work.
- **Testing themselves** : The *Quiz* activity can give immediate feedback to the learners related to their answers, so learners can regularly test themselves building their knowledge and confidence throughout their learning journey.

ONLINE COMPILER/ SIMULATOR

Online Compilers are useful in various accords. If a particular IDE or Compiler cannot be installed to a system, Online Compilers offer a simple solution. They also work on mobile devices which makes it a platform independent solution. This also means a student does not necessarily have to have a computer or laptop to run and compile code.

Conception of a difficult concept can be effortlessly achieved using visual aid. Online Simulators provide a life like rendering of various situations. They help students better imagine a situation

or a process in a contemporary manner. They also help in training one's mind to react properly, example a flight simulator provides a pilot a near to real experience in flying a plane.

Outcome

Simulation / Compiler tools offer many advantages compared to traditional teaching methods. They are able to demonstrate abstract concepts, allow interaction between users and simulated equipment, and provide users with feedback that allow users to improve their knowledge and skills and do have the following outcomes

- It produces cost-effectiveness over the long-term.
- Simulation tools can transform abstract concepts into interactive visual content, making it easier for students to understand the performance and relationship between different system parts.
- They can become familiar with the equipment and environment, and practice necessary skills without risking accidents to themselves, the equipment, and the environment.
- A wide variety of scenarios are available for students to experiment in, such as emergency events, so that they are able to execute the appropriate procedures when these events occur in the real world.
- Simulation tools used for education can be found across numerous industries, with new uses being implemented as technology continue to improve.
- Many training applications involve training for high-risk or dangerous situations that would be difficult to train for in the real world.

WORDPRESS

Wordpress is an open-source content management system which is often used as one's own blogging software. It offers a free and open-source content design, management and hosting services. It simplifies the creation and management of a website. It acts as a powerful content management tool which is simple to use and instantaneously develop websites to meet requirements. It is a scalable service which meets the requirements of the user. The teachers can set up different blogs to host a virtual classroom, which is the central location for the students to

know the information about the assignment deadlines, or to download class notes. Students can create their own space to discuss and share ideas with the team members.

Outcome

WordPress, that was a basic blogging platform a decade ago, is now the most widely used and popular content management system (CMS). WordPress is the **best CMS platform** which is used extensively for developing websites of any type, size, and business. The following is the outcomes of using Wordpress.

- Easy-to-Use Admin Panel
- WordPress is SEO Friendly
- Numerous Customization Options
- Business Generating Source
- Easy to Enhance Functionality with Plugins

GOOGLE CLASSROOM:

Google classroom is a free web service that reorganizes the process of sharing files between teachers and students. The teachers can create a classroom online in which they can manage all the documents that their students need. The documents are stored on Google drive and can be edited in Google Docs, Sheets etc. The teachers can give assignments, make announcements, share classroom materials, conduct quiz. The students can also submit assignments, comment on it, and can email to the teacher. It provides a modern solution to assign tasks and manage the progress of every student in a class.

- It is a medium which allows an exchange of files and assignments without major hassle.
- The simplicity of usage and sophisticated controls over a classroom makes this tool appealing to teachers and students.
- ICT tools emphasizes this tool by providing integration to many other tools in a co-executive environment.

Outcome

Google Classroom is part of the online Google Apps for Education (GAFE), suite of packed productivity applications for teachers and students in learning and online collaboration. The application provides a central location to communicate with students, ask questions, and make assignments and provide the following outcomes.

- Improving Teacher's Quality
- Student Uses Internet Wisely
- Time-Saving
- Eco-Friendly
- Facing the Distance of the Residence
- Improving Cooperation and Communication without Time Limit
- Document Storage

KAHOOT

Kahoot is an online learning platform which is purely game based that can be used by teachers to educate the students. It makes learning fun which makes it appealing to students. It makes the students feel like they are just playing a game. This game based platform enables to create new quizzes with multiple choice questions which could be accompanied with images and videos to add more interactivity. It can be accessed using mobile and other computer devices. It offers features to the teachers where they can analyze the results of students' understanding and can help them in that area.

Outcome

Kahoot is a tool that delivers and presents questions to students. It is set up as a game that students can play either individually or in groups. Instructors provide students with multiple-choice questions, which are projected on a classroom screen and has the following outcomes.

- It can be used to present a new topic by assessing what students already know about the topic and what areas they should know.
- It helps to improve vocabulary terms, terminology, and definition, because Kahoot focuses on fast-paced questions.

- It allows to poll students about their opinions. It allows instructors to present opposing sides or viewpoints of an argument or dilemma.
- Kahoot reviews for an examination or test. Students like the ability to review class material in a game format.
- It allows learning information in sequential order. Kahoot has recently launched a jumble mode, which allows students to put things into consecutive order. This allows instructors to ask questions about chronological or progressive order.

Together with the above listed ICT tools few more tools used in the teaching-learning process are listed below.

- E-books
- E-journals
- Digital library
- Educational blogs
- E- content in Inlibnet
- PowerPoint Presentations developed by Staff Members
- Open Source Software (Libra Office, Scilab, Latex)
- NPTEL Videos
- Licensed software's (SPSS, MATLAB etc)
- E-Content Development Videos by Staff Members
- Canvas LMS
- Spoken Tutorial Video
- Value Virtual Lab