

How to use ICT to teach

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How different is information and communication technology (ICT) from IT? How does incorporating ICT in everyday lessons help our children learn? And why is it so important?

What is ICT?

Technology has advanced at a speed that man never thought possible ten years ago and it has now spread its tentacles in varied areas, such as banking, communication, travel, etc. But for the purposes of this article, our interest is not in IT or Information Technology, but in ICT or Information and Communication Technology. What's the difference? Information and communication technologies (ICT) are a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. ICT has been largely associated with computer and Internet usage. However, ICT also includes TV, radio, LCD, audio devices, etc. ICT deals with not only information but communication as well. ICT means creating information and sharing it. Computers, mobiles, Internet, radio, TV, and such devices help us do that. How does ICT relate to teaching?

Paradigm shift

The present generation has easy access to any kind of information they want. The thrust, today, is on dissemination rather than accumulation of information and on sharing it. But if we look at the transactions in the classrooms, it is still the teacher talking and students listening. But this method of teaching-learning will not work in an information age. We need to shift from giving information to 'constructing' knowledge! This is where the student becomes an active learner and teacher a facilitator of learning. This is the paradigm shift that should happen.

The purpose of teaching has not been understood in the new scenario. Information need not be given rather it has to be extracted from the learners. Very few things are new to the learners now. They see, hear, read a lot from TV, Internet, and the newspaper. The main role of the teacher, therefore, is to help students organize, create, and share the information they are gathering.

ICT in teaching

Before we see how ICT can be used to teach, let us list the problems in a regular Indian classroom— large number of students, students with different abilities, lack of space, deficient attention, lack of exhibit facilities, vast syllabus. Can ICT help? You will see a drastic change in the attention and participation of students if ICT is incorporated into the teaching method. For that we first need to change our approach to teaching. We need to involve students in the teaching-learning process. Gathering information is possible through ICT. The teacher only has to facilitate this gathering of information.

There are different ways of using ICT in teaching.

- **Use of multimedia (computer, LCD projectors, speakers) in the classroom**

The teaching method depends on the nature of the topic. Certain topics are easily adaptable to group discussions, while some need to be explained, some can be debated, while others require lab work. For a topic that requires many pictures, animation, videos, etc., to be shown, multimedia can be used in the classroom. PowerPoint is very useful in making multimedia presentations on topics of study. Pictures and information on a variety of topics are available on the Internet, but you could use your own photos and videos in your PowerPoint lessons. All the information in the textbook need not be reproduced in the ppt. Students could be given worksheets to respond to based on the ppt as the lesson proceeds. This helps to assimilate information.

Your teaching should follow three different phases:

1. Initial – to create a perfect environment
2. Main development— to expand the topic
3. Discussion/assessment— discuss, recap, assess

Multimedia can be used for all 3, but mainly in the initial phase.

If you are teaching a poem by Rabindranath Tagore, a picture of the poet, places, events related to the poem, pictures showing the lifestyle in Bengal during the poet's lifetime, etc., will help set the stage for you to teach further. Kabuliwala by Tagore can be better understood by today's mall hopping generation if the scene and setting of the story can be created for them on the computer.

If the lesson is about East India company, then short videos depicting India then, the lifestyle in those times, the political situation that lead to the establishment could be shown. Showing children life then will help create the environment and interest required to learn more. How did the English communicate with the Indian rulers, traders?

If the lesson is about the animal kingdom, then pictures, videos of different types of organisms and the environment they are found in, etc. can be shown very effectively on ppt.

If the lesson is about the digestive or the respiratory system then computers can be of great help. An animated video of what happens inside our bodies when we eat or breathe is the best tool to incite children's curiosity.

- **Use of computers in teaching (without the Internet)**

Computers are used for teaching in the computer lab. This is a very different style of teaching from use of multimedia in the classroom. In this method, 4 or 5 students are given a computer. The teacher prepares a ppt for a topic and loads it on all the computers. The ppt contains instructions, tasks and questions for students to respond to. It is made to encourage discussion among the group members, collate their ideas and share. The topic is presented through related situation.

This can be tailored to suit students of different abilities.

- Students can store their work in a word doc for the teacher to see and respond.
- The presentation can end with a discussion about the topic.
- Try to get the students to use the various applications on the computer to make their responses more interesting.
- If you are teaching about the trapezium ask the students to draw a trapezium on the computer and colour it!
- If you are teaching about soil ask students to draw the layers of soil on computer and colour them!

- **Use of Internet in teaching**

The possibilities of using the Internet in the classroom are many. The teacher can create a blog to store pictures, lessons, worksheets, assignments, notes related to a topic. This way the teacher can discuss the topic anywhere and with many students even outside the classroom. Students can also upload their work on the blog. If you type 'teacher blog' in Google you will get many sites that will help you to create a blog of your own. Your students can have their own accounts in your blog. This helps to supplement your teaching by providing more information and a platform for students to share their ideas, which is not always possible in a large class. Shy, introvert, slow students also get a chance to participate. You can give diversified assignments that students can choose from. You can test the students and mark them too. Students get a chance to learn and relearn, go through the topic several times ask questions without being embarrassed. You can also ask students to get information from sites related to the topic.

- **Use of TV, radio in teaching**

The students could be given assignments based on radio, TV programmes on history, geography, science, and environment. This not only creates interest in the students but also enables them to get more information. This could be shared in the class. It can be planned in such a way that much of the syllabus could be covered. All topics need not be taught in the class by the teacher. Some could be presented by the students and supplemented by the teacher.

Conclusion

The idea here is not just to use gizmos to make teaching very techno-driven. The purpose is much higher. I have used ICT in all the ways mentioned above for several years with my students who are trained to become teachers. The results are unbelievable. Even I didn't know the nuances of using ICT, the features of the computer, MS office, or using the Internet. But continuous use enabled me to use ICT in a very effective way.

Category: Teacher Development

Subject: Science & Technology
Others

Board: All boards

Grade/Standard: Class 1-2
Class 3-5
Class 6-8
Class 9-10
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