

EasyNow Techniques: Empowering teachers to create contents using information and communication technologies

Theme: Formal Education

Dr. Neeti Misra, Associate professor, Department of Chemistry, Acharya Narendra Dev College (University of Delhi), Govindpuri, Kalkaji, New Delhi-110019

email: neeti.andc@gmail.com

INTRODUCTION

India is trying to achieve complete literacy through Sarv Siksha Abhiyaan programme (<http://ssa.nic.in/>). This involves teaching each and every child in all the parts of the country. The success of the literacy programme will be decided by the number of children who continue with the education. At the same time we will never be able to achieve complete literacy without teaching the adults who have missed the opportunity to study as children. This section of the population can be made literate under the adult literacy programme. For achieving all this, schools need to be set up within easy reach of each child. More importantly sufficient number of qualified teachers should be appointed in each school. Generating such a huge infrastructure requires a lot of time which means another generation not getting access to education. Therefore, to bring education to the door step of every citizen of this country within next few years, it is time to make use of technology. However, technology without educational content is meaningless. So the need for the hour is to use the skills and expertise of available teachers to develop educational content and spread literacy. Since these teachers cannot be present physically in each corner of the country, information and communication technology (ICT) has to be used. The real classroom teachings can be recorded and then enhanced with other multimedia tools to create educational content in various delivery formats. These content can then be made available to the students who do not have access to formal education. The learning can be made interactive by giving the facility to the learners to interact with the teachers through mail or telephone.

NEED FOR TRAINING TEACHERS IN ICT

There are several reasons for training teachers in ICT which include increasing their teaching skills, helping them to use more educational resources, tap their expertise to spread literacy and make them content developers. Conventionally teachers all over the world have preferred using chalk and talk for teaching. This method is still considered one of the best ways of teaching in formal education. However, increasingly many teachers are now realizing the need to adopt more innovative tools to supplement conventional teaching. Teachers also want to use resources available beyond the borders to enhance their teaching abilities. So giving basic ICT training to teachers will open more opportunities for them.

For the teachers involved in non formal education, ICT can help them reach a larger number of students. ICT can also help them interact more frequently with the students and solve their problems. The teachers can upgrade their content more easily and also transfer this knowledge to the students without waiting for the newer edition of the content to be printed and then distributed.

WHY SHOULD TEACHERS BE INVOLVED IN CONTENT PREPARATION

The teachers are the best people to develop content specially for the multimedia. They can bring their expertise of the classroom teaching as well as the subject knowledge to prepare good quality and effective content. The available educational content for electronic media is still insufficient and does not cover all the subject areas. At present if a teacher wants to make use of multimedia in teaching, the content available is a packaged product generally prepared by private companies. Most of the available content is under copyright, so in the long run the use of multimedia content becomes expensive for individual teacher as well as the institute.

Another source available to the teachers is the internet which has a large repository of content. However, it is an uphill task to get authentic and validated content from the internet. The available content on the internet as well as multimedia educational kits is generic in nature. It is not in the local language. The examples and case studies used are country or region specific. So it becomes difficult for the students to correlate with such examples.

If the teachers are comfortable with ICT they can generate their own content. Such content will have the advantage of being tailor made according to the specific requirements of the learners. The teachers will be able to make content in local language and use examples to which the students will be able to correlate. They will have the ability and freedom to modify the presentation and the difficulty level of the content depending upon the learning abilities of the students.

The institutions will also benefit if the teachers start producing educational material using multimedia. With one time investment, the institution will be able to develop its own customized multi media content. The institution will be free to modify and update its content from time to time according to its requirements with minimum cost. This will improve the teaching quality of the institution.

ICT enabled teachers can also put their content on the internet and get it peer reviewed. This will ensure that more number of resources available on the internet are authentic and validated. Such educational resources can then be used by the learners who are not able to get formal education.

HOW TO EMPOWER TEACHERS TO MAKE MULTIMEDIA CONTENT

A survey conducted by the author among the teachers coming for training workshops indicated that the teachers consider developing multimedia content as a specialized job. Most of the teachers are in awe of ICT and consider these technologies difficult to learn. The teachers believe that in content development their role ends with providing subject material and that converting this material to multimedia content is a specialized and expensive process.

There is another feeling among the teachers that advance knowledge of computers is the basic requirement for learning multimedia content development techniques. They also have an apprehension that learning these techniques will require a large amount of time and money. Further even if they learn these techniques, making multimedia content will interfere with their teaching as it is a time consuming process.

Keeping these facts in mind the first step in empowering teachers is to make them comfortable with information and communication technology. This can be done by providing computers and other tools to the teachers and encouraging them to use these for teaching. The next step is to teach them such techniques which are easy to learn and use. At the same time it is also important that the content development should be integrated with the classroom teaching.

EASYNOW TECHNIQUES WORKSHOPS

EasyNow technique workshops are aimed at enabling teachers to become content developers using ICT tools. A working knowledge of computers is the basic requirement to attend the workshop. The ideal duration of workshop is five to six days. This workshop gives training of technical aspects as well as methodology of content creation. It also makes the participant self-reliant in further learning of newer techniques

What is EasyNow?

EasyNow techniques is the name given to content creation methodology developed by Commonwealth Educational Media Centre for Asia (CEMCA, <http://cemca.org>). This methodology includes a set of ICT tools collated and modified by Mr. V. Krishnamoorthy who is a consultant with CEMCA. These tools are mostly available on the computers. The software taught are generally freely available on the internet. Many of these softwares are open source softwares.

As the name suggests these techniques are easy to learn and utilize by content developers. The raw material for the content can be prepared using a normal computer, an audio recorder and a digital camera. The content can also be prepared on a computer with a headphone and web camera.

These techniques integrate the use of various multimedia to develop content in different formats. Once the teachers learn these techniques they can produce good quality educational material for open and distance learning as well as formal education. The multimedia content can be inexpensively developed and can also be distributed through various delivery modes like internet, cd, dvd, flash drives and mobiles.

EasyNow techniques are not a closed set of software, as new softwares are continuously being added to the package. After learning these techniques, the participants themselves

know how to search for new tools that will fulfill their requirements. CEMCA provides a platform where any new useful tool found by the participant is added to the package, thus enriching the EasyNow techniques.

Skills taught under EasyNow techniques

During the EasyNow workshop, the participants are taught to prepare contents in various formats which are known as multiple modes of delivery. The major delivery modes taught are

- textual
- audio
- streaming slide show
- video

In textual delivery mode the participants are taught to prepare a simple text document and then convert it into print ready format and html file that can be easily uploaded on the internet. The participants also learn to prepare text for the visually challenged that has embedded audio as well magnification facility.

To prepare audio part of the content, the participants are taught to capture raw audio from various sources. They are taught to record their lecture using a computer, head phone and microphone or a simple mp3 recorder. They are then taught to convert the prepared audio files into proper format. The participants are also taught to extract audio files from available audio/video compact disks(CDs). To modify the available audio files, editing of audio file is also taught.

The next delivery mode taught to the participants is the streaming slideshow in which a simple slide show presentation is converted to a movie of slides with the embedded audio track.

The last type of delivery mode included in the EasyNow techniques is the video delivery. The participants are taught to record their classroom lectures using simple digital camera. They are also taught to edit the video and enhance the video by adding photos, graphs, illustrations where ever required.

The participants are also taught basic compression techniques to reduce the file size so that they can be uploaded and downloaded easily.

The participants are then taught to integrate all the delivery modes into one package and supplement it with quizzes, question banks and self assessment tools. The final package is in the form of suitable Open and Distance Learning(ODL) format. The package can be distributed through the internet or in the form of CD, DVD which can be viewed on computer as well as television.

Methodology of teaching EasyNow techniques

The list of skills taught using EasyNow techniques may appear to be daunting to the teachers, but these techniques are taught over a period of five days, starting with the simplest techniques. This builds up the confidence level of the teachers as the workshop progresses. The teachers get immense pleasure and satisfaction from creating content in simple formats so that they are eager to learn more advance techniques.

As a part of the workshop, the participants are asked to prepare one lesson in multiple delivery modes. Depending upon the initial expertise of the participants with the computers, the content preparation is either completed during the workshop itself or an additional time of one or two weeks is given prepare the content. Once the workshop is over the teachers can still remain in contact with the resource persons to solve their queries. The EasyNow manuals are available on CEMCA website for ready reference of the teachers.

Use of EasyNow techniques beyond the workshop

During the workshop the teachers are encouraged to record their important classroom lectures through out the year and then enhance these lectures by using EasyNow techniques. Depending upon the available funds the classroom recordings can be done either by the professionals or by the teachers themselves. The teachers can even use mp3 recorders to record their classroom lectures. These audio recordings can then be edited and integrated with illustrations, graphs, photographs of board works of the classroom to prepare streaming slide shows. The soft copy of the text of the lectures can also be prepared. As a result, by the year end, the teacher will be ready with the entire content in various delivery modes by investing small amount of time and money.

CEMCA INITIATIVE

CEMCA has been conducting a series of workshop in various South East Asian countries like India, Bangladesh, Sri Lanka, Maldives and Malaysia to train the teachers in EasyNow techniques. This has helped many teachers to evolve as content developers. These trained teachers have now themselves started training their colleagues in these techniques. With funding from government and other agencies this can soon set up a chain that has a potential to convert most of the teachers into content developers.

CONCLUSIONS

To make education available to all, it is time to make use of ICT in education. A widespread use of mobile phones has shown that technology when applied judiciously and innovatively can be used by all. So the need for the hour is to make educational content which is effective in the electronic media. For this teachers trained in ICT are required as content developers. EasyNow techniques provide a simple, cost effective and time effective method of training teachers and other subject experts to evolve as content developers. Training teachers in EasyNow techniques will immediately benefit the teachers and learners. This will ultimately benefit the educational institutions, government and the nation.