

INTEGRATION OF ICT IN TEACHER EDUCATION

- A Workshop Report



Venue : RIE, Odisha, Bhuvaneshwar
September 14-16, 2016



Directorate of TE & SCERT
Odisha, Bhuvaneshwar

Background and Context

A computer is an electronic device that can be used to store and process information. Computers help to perform a variety of tasks such as receiving and sending e-mail messages to family and friends, making presentations, and maintaining records. Computers are also used in education, research, news broadcasting, weather forecasting, and for various other business and recreational activities.

ICT curriculum is designed to provide an opportunity for pupils to learn basic computer skills, and to employ tools to find, explore, analyze, exchange and present information. During this process, teachers are expected to assist students to increase their capacity to use computers and to utilize the ICT tools in the classroom to promote initiative and independent learning among students. By using ICT, both teachers and students will develop the ability to when and where to use ICT best. Success in the use of ICT in education depends largely on teachers and their level of skill in integrating ICT into the teaching process and in utilizing ICT to provide learner-centred, interactive education. Therefore, trained teacher educators would be able to use ICT and to integrate ICT into teaching is crucial for achieving improved educational outcomes with ICT. The best use of information and communication technologies to deliver knowledge and information to all; to facilitate communication; to provide greater interaction; and to encourage innovation and creativity to improve national productivity and competitiveness.

Objectives

Information and Communication Technology (ICT) has been part of the teaching-learning process especially in the 21st century. Teachers make use of computer-assisted instructions. Microsoft Word is used in making reports. Microsoft excel is used in making grades. Microsoft & power point is used in making presentations of lessons and publisher is used in layout bulletin boards and displays. These are just some of the many ways ICT is being used in education.

1. To train participants integrating ICTs in Teaching-Learning-evaluation Process
2. To orient faculty members to use Collaborative and Cooperative teaching learning strategies
3. To initiate Cooperative and Collaborative learning processes through the use of ICT tools among Faculty members.
4. To help Faculty members to create and disseminate learning resources.

The aim remained the same: to equip teachers with the knowledge, understanding and skills about when and how to use ICT in their teaching. ICT can be used in education in two ways: as a subject (learning to use ICT) and as a tool (using ICT to learn). Using ICT to learn requires first learning to use ICT. ICT tools provide an opportunity to enable students to participate more actively in the process.

Pre Workshop Activities

As a part of pre-workshop activities, Google Group created for the participants and Resource Persons. They all were invited to join the group. Resources posted on the group so that all participants get access to know all the resource material posted.

Prerequisites

- Use of Office tools comfortably in teaching, training process
- Use of internet, email, in teaching, training process
- Use of other accessories like digital camera, scanner etc.

Course outcomes

After completion the participants will be able to:

- Create learning Resources
- Share Learning Resources
- Use learning Resources in teaching, training
- Create learning community
- Participate in collaborative, cooperative learning process
- Provide suggestions, comments in cooperative environment
- Prepare a Plan of Action for integrating ICTs in day-to-day teaching/training.

Teachers are the key to the successful integration of ICT into education. They manage the processes of teaching and learning. Without the active, enthusiastic and skilled participation of teachers, innovations to enrich education with the advantages offered by technology are doomed to fail. The full participation of teachers in adopting new technologies to enhance education requires a commitment for ongoing professional development of teachers.

Training Methodology

The training methodology consists of:

- Face to face intensive sessions which makes learning exciting and creative.
- Understanding group dynamics and practice including discussions and problem solving exercises.
- The learning Modules posted on class LMS using Moodle.
- Presentations by the Resource persons which includes discussions.
- Hands-on support and group activities.
- Active participation of all the participants.
- Google / Power point presentation/ Various links/ Internet
- System/ Online-Resources/ Group creation/ Forum

Participants

About 30-35 Faculty members from 11 selected institutions of teacher training from State of Odisha registered for the Workshop of 3 days. Online Moodle class created for all participants through which all the resources as well as asynchronous interactions initiated and continued.

Resource Persons

The workshop sessions and other activities are guided by professionals from SNDT Women's University, Mumbai.

Technical Session Begins...

The training begins with providing basic ICT applications and a set of instructions which include text, audio, video and images. Practical exercises followed by the teacher educators to learn how to utilize ICT to develop calendars, prepare events, blogs etc.

A three day workshop on integration of ICT in teacher education was organized from 14th to 16th of September 2016 at the computer lab of Regional College of Education, Bhubaneswar from 11 selected Institutions who need more improvement about ICT skills. The resource persons invited from SNDT Women's University, Mumbai. It was a collaborative programme of SCERT, UNICEF and SNDT Women's University, Mumbai. 30 participants were attained the workshop. The participants had a chance to apply the inputs given to them by the discussants because they were in front of computers of the laboratory.

Dr. Snigdha Mishra, Deputy Director -TE, SCERT was welcomed the participants and Resource person. Ms. Mansi Nimbhal, IAS, Director, SCERT shared her expectation of the training programme. Ms. Lalita Pattnaik, Education Specialist, Unicef elaborate the objective of the programme. The workshop was lead by Prof. Jaishree Shinde, SNDT University, with two instructional designers Ms. Priyanka Patil and Ms. Monali Joshi.

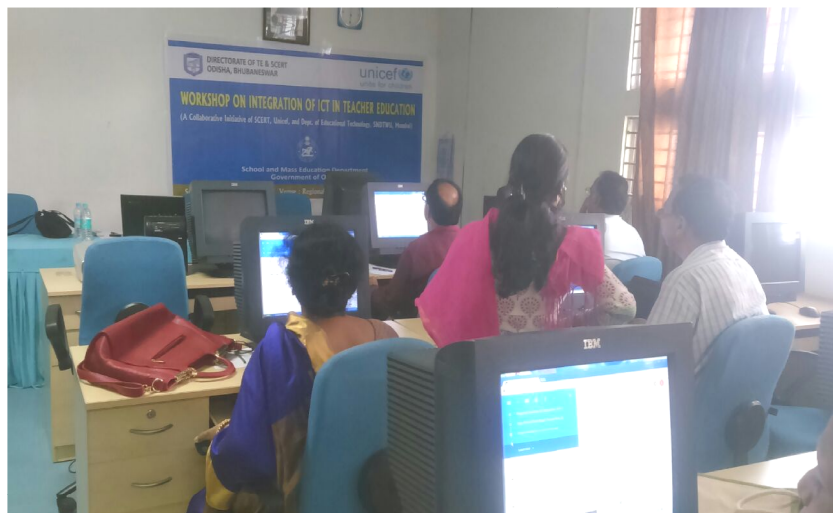


The first day session started with the Use of GOOGLE Calendar which is a time management web. User of GOOGLE Calendar must have a google ID. Here through online we can create event dates, Birthday, meeting etc. and can be saved and calendar can be viewed from any location that has internet access. Prof Shinde demonstrated the Google calendar through PPT. She also elaborates regarding teacher tube to the participants which is a very helpful website for teachers. The teacher educators share their knowledge and ideas. She again discussed about the 9 dots Icon from google / gmail banner. She shared an instructional video on google drive to all participants. By following the video participants create new text, spread sheets and drawings in google drive and sent to Prof. Shinde for review.



After lunch session started with demonstration of mind mapping. Dr. Shinde asked to download x-mind software to work in mind mapping. This activity helps teachers, students and teacher educators to develop concept map. Sharing of Mind Map and concept Map in face book is also discussed. The session followed practice on use of Google Maps and it helps participants search their own Institutions through satellite. Dr. Shinde also recommended few more sites like Google scholar, Google translate and Google books. She shared on the use of Facebook through teaching learning process by creating groups for sharing of various resources which can be easily accessible. She also emphasized on CURRIKI website to learn how to download and upload files where, many open educational resources are available for teachers and teacher educators. Again she demonstrated on the use of SKYPE and one faculty from the SNDT University, Mumbai helps in demonstrating on the subject.

On the 2nd day Professor Vasudha Kamat, joins the session and started with VIZIQ software. In this software resources can be uploaded and group discussion can be made. Here she describes how a large class can be taught through VIZIQ. She also creates a demo class room where participants registered themselves. Participants share their ideas and queries met. Prof. Kamath discussed on the integration of ICT in teaching learning process through power point regarding flipped class room, and blended class room and concept of OER and different OER available in WEB. Participants learn how to create **BLOGS** and its implementation in Classroom which is a very useful tool for teaching learning process.



On the 3rd day, Prof. Kamat started the day with a revision of previous day's activities. Participants share their thoughts regarding the usefulness of blogs at their institutional level. The first technical session was on MOODLE by Prof. Kamath. It is

free and open educational software. It is an online learning platform and a place where teacher and students can participate and engage in various activities of their assigned module. All participants created their own class and explore the many facilities available in the software.

Beyond the computer skills, the course extends teachers' competence in ICT to a level that enables them to produce teaching and learning materials for their own use and to share them with subject colleagues. In particular, the course gives instruction in how to access and utilize a blog which contains examples of lessons, and how to share their resources with others.

The Report Noted

- There was a need to establish a minimum ICT competency level for teachers, particularly in terms of competency in the innovative and creative use of ICT in teaching.
- Provision of training in teaching methods and recommended that the teacher training curriculum should incorporate competence in the use of specific ICT tools, competence in integrating ICT into subject teaching, and competence in utilizing ICT for planning, preparing, teaching, assessing and evaluating lessons.
- Updating courses to incorporate changes in the curriculum and in technology.
- There was a need to implement the Smart School initiative in a more defined, structured and balanced manner and to improve the management of the various projects.
- ICT training programmes have improved teachers' ICT skills, enabling them to incorporate ICT in their lesson plans.
- Teachers are able to produce digital materials and to integrate ICT in teaching and learning.
- ICT can transform both the teaching and learning processes and facilitates autonomous learning.
- ICT are most useful when they are used to support educational goals. It is therefore best to avoid isolating ICT as a separate subject.

Plan of Action

1. Whats-app course for 5 days
2. All the participants of this workshop to discuss with other faculty member whatever they have learnt from the workshop.
3. Practice & explore in WEB.
4. Student involvement by selecting one topic & creating BLOGS (Institutional level) by May 2017.
5. Create one class on MOODLE and use in teaching learning by FEB or APR 2017.
6. Adopting co-operative & collaborative learning strategy i.e. Zero lecturing class. Presentation and group discussion by them.
7. Creation of Blogs by all 11 institutions and share with others.

Some of the teachers' comments are reproduced below

"This course has enabled me to use ICT in teaching and learning in line with the current developments in the education system."

"After the course I became aware of the importance of ICT for the future and learned that it is very important to use ICT in Teaching and Learning. The use of ICT enables the process of teaching and learning to be more enhanced and complete."

"The training had a positive impact on their professional practice and that they were increasingly confident in the use and application of ICT in their teaching."

"This program has enabled me to increase my knowledge and skills in ICT. In particular it is a great help for me in lesson planning. I received a great deal of understanding and knowledge from my friends and peers from other schools."

"This is an eye opening to a new way of teaching."

"It's a great course, a useful tool; opening doors to learning, to turn children on to lifelong interest."

"A very beneficial course to all teachers regardless of what subject we teach. For sure this is one of the best ways to educate and guide our pupils/students."

"To all teachers, grab this opportunity to attend this course because it has many benefits for teaching and learning."

"This course is very significant for me where I where I was able to learn many things about ICT."

"It also helps me in my area of teaching and learning."

Evaluation / Assessment Scheme

As discussed the following has to be conducted for submission of the following (within 2 weeks):

- a. Create a blog (and invite at least 5 fellow teacher educators or friends to write comments, Insert image in the text)
- b. Create a Group (invite at least 5 people to join the group. Upload at least 1 file, 1 link and 1 photo album on the Group)
- c. Share Google Document with at least 2 persons to edit.
- d. Upload a video clip on YouTube/Teacher Tube
- e. Take membership of at least 1 community.
- f. Prepare a map of places to visit (e.g. class trip) using Google Map
- g. Moodle Class Activity
 - i. Upload at least two resources (word file, ppt etc.), or provide link to g two OERs
 - ii. Create one thread of discussion Forum

Conclusions and Recommendations

- Overall, the training was conducted successfully. It was the general feeling that more time should have been accorded because some did not have a strong background in computer and deeper training is needed on ICT Integration.
- Consolidate Plan of action developed by Institutions.
- Availability of institutional equipment to make it ICT friendly.

Participants List

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Workshop Schedule

Date/ Time	September 14 Thursday	September 15 Friday	September 16 Saturday
10.00-11.00	<ul style="list-style-type: none"> • Inauguration Session • Registration • Objectives and agenda of the workshop 	<ul style="list-style-type: none"> • Collaborative Authoring and Editing • Google Forms, Managing drive, Google Map, Mind-mapping 	<ul style="list-style-type: none"> • synchronous communication activities • Hangout, Skype • Virtual Classroom tools (WizIQ)
11.00-11.15	Tea	Tea	Tea
11.15-01.00	<ul style="list-style-type: none"> • Managing Google calendar • Sharing resources: Uploading on YouTube, Teacher Tube • Dropbox 	<ul style="list-style-type: none"> • Hands on experience: • Sharing resources • Exploring e-Contents 	<ul style="list-style-type: none"> • Online Learning (Moodle) • Using Moodle-based activities in Blended Learning • Group-work • Exploration of Moodle
1.00-2.00	Lunch	Lunch	Lunch
2.00-3.15	<ul style="list-style-type: none"> • Slideshare • Collaborative Authoring and Editing • Google Drive • (Google doc, drawings, presentation) 	<ul style="list-style-type: none"> • Introduction: Communities • Facebook, Curriki, WikiSpaces, Blogs, • Groups (Yahoo, Google, Grouptable) • Synchronous Communication Tools, Virtual Classroom: • (Skype, WizIQ) 	<ul style="list-style-type: none"> • Hands on experience • Action Plan (for sharing with other faculty members as well as integrating in teaching learning process)
3.15 - 3.30	Tea-break	Tea-break	Tea-break
3.30-5.00	<ul style="list-style-type: none"> • Hands-on 	<ul style="list-style-type: none"> • Hands on experience: • Online Communities, synchronous communication tools 	<ul style="list-style-type: none"> • Valedictory Session

