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**Working Paper**

## ICT Classes at the DIET College Mahbubnagar: Bringing Digital Skills for Both Men and Women in DIET College

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# **ICT classes at the DIET College Mahbubnagar: Bringing Digital Skills, For Both Men & Women in DIET College.**

ICT India Working Paper #17

Sana Tahniyath, Srinivas Akula and Radhika Iyengar

May 2019

## Executive Summary

The District Institutes of Education and Training (DIETs) are responsible to train all pre- primary and primary school teachers in India. Each district has a DIET that is required to provide a certification program for all the potential primary teachers in the district. As a part of the State wide curriculum followed by DIET, a course on ICT is mandatory for all teachers. Trainees. CSD had already developed an ICT curriculum at a community-based ICT center. Given the needs of the DIET, the Center started to support the ICT lab at the DIET. The project will start with a pilot in Mahbubnagar which will be helpful to prepare a generic model for the country.

This initiative will re-active the ICT lab that each DIET has. The work thus initiated will help to implement the SCERT prescribed ICT Curriculum in the DIET. This report provides an overview of the work completed in the first 5 months of intervention. It then outlays the new suggested chnages for the 2019-20 academic year.

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## Introduction to DIETs

The DIETs have been established with all the required infrastructural facilities so as to meet the pre-service and in-service training needs and other requirements of primary education functionaries. Often, DIET is seen as an agency linking primary and secondary school system too. DIETs which have been established with a mission of providing academic and resource support at the grass-roots level for the success of the various strategies and programmes being undertaken in the areas of elementary and adult education. The main functions of a DIET are identified in the background of achieving Universal Elementary Education. They are training, resource support, research and monitoring, evaluation, coordination etc. Therefore DIET's become the main entities that will improve the learning outcomes for millions of children studying in primary schools.

## The role of ICT in DIET

The DIET curriculum also includes Information Communication and Technology . There is a dedicated teacher at the DIET who is responsible to teach ICT as a subject. All DIETs are also supposed to have a functional computer lab. Some of the topics included in the ICT syllabi are the following-

- Importance of CD & DVD Drives and its usage
- Importance of Projectors and its usage for different types of projectors
- Introduction of MS-Office , its usage & explanation of MS-Word
- Introduction of MS-Power point , its usage & its differences
- Introduction of MS-Excel & its usage & Basic function
- Important functions of computer like(Copy, paste, moving the files,etc)

## Needs Assessment

As per the existing curricular needs of DIET, each DIET has a computer lab. The curriculum as given below includes a wide set of course that need to be completed in a given year. The syllabus includes advanced topics that already assume a high level of computer skill awareness. As a part of the initial needs assessment, the computer lab was already in place. The computers were fully functional however there was no internet connection.

The lab is equipped with: -

- 30 - Computer sets
- 30 - Computer tables
- 30 - lab chairs

- 1 – Projector with a screen
- 2 – Air conditioners
- 5 – Wall fans



The current students did not use the computers at the lab. There was also no ICT teacher and the post was left vacant.

## Preliminary Assessment of Students' ICT Skills

In order to gauge how much students have learned, it is not enough to assess their knowledge and skills at the end of the course or program. We also need to find out what they know coming in so that we can identify more specifically the knowledge and skills they have gained during the course or program.

Now coming to the students of DIET college and their skills prior to this ICT's program were deliberately below par, the students were lagging behind even to execute basic fundamentals of computer due to lack of knowledge. Students lacked the basics of even operating the machine which included- how to switch on and off the machine.

To know their skill level, the following Assessment was conducted:

1. Tell me something you know about computer?
2. How many types of computer machine?
3. Who is the father of computer?
4. Do you know how to start the computer?
5. Do you know the fundamentals of computer?

6. Do you know the parts of computer?
7. Do you know how to shut down the computer?
8. What is needed to run the computer?
9. What is an operating system?
10. Types of operating system?

## DIET Curriculum

With the help from the ICT Center for Women, the DIET college started to operate the ICT Center lab. The new Curriculum focused on: -

### Enhancing Computer Skills

The new curriculum includes appropriate content to develop the interpersonal skills, and computer skills. The content was devised after having discussion with the college computer faculty about the most important and relevant topics for the students. These were broadly identified as preparing presentations, Computation, using MS-Word, MS-Excel and also how to use social media safely.

The first week of the execution of the classes focused on introduction of students & exploring their knowledge in technology and computers. This helped in understanding where students are lacking behind in basic knowledge about computer & its peripherals. So before teaching them advanced concepts like complete package of MS-Office, Cyber security & web applications, we started basic knowledge of computer and its devices. After the introductory session the team moved ahead to the key concept of MS-Office which is MS-Word, introduction, uses & the uses of Ribbon menu system and the commands of each options were also included.

### Overall the content will address the following topics:

- ICT skills, Cyber wellness, security
- Support business activities (product research, e-commerce, online banking, accounting tools, identifying funding opportunities)
- Photography and social media.
- 

### Batches at the Centre

Students are divided into three groups at the DIET- Urdu medium, English Medium and Telugu medium students. There are about 90 students in each group. One day a week is assigned to each batch. The batches are further divided into groups of 30 for the lab work.

## DIET COLLEGE SCHEDULE

DIET College time table of ICT weekly classes provided  
by College management

DAYS	CLASSES SCHEDULE	TIME
MONDAY	1 <sup>st</sup> Year Urdu Medium students	10:00 AM TO 3:00 PM
TUESDAY	2 <sup>nd</sup> Year Urdu Medium students	10:00 AM TO 3:00 PM
WEDNESDAY	1 <sup>ST</sup> Year Telugu & English Medium students combine	10:00 AM TO 3:00 PM
THURSDAY	2 <sup>ND</sup> Year Telugu & English Medium Students combine	10:00 AM TO 3:00 PM
FRIDAY	It's a optional day whichever the group is free on this day they will come to the lab for their practise.	

### Student Data through Weekly Updates

In each class attendance is taken and reported and a spread spread sheet is recorded for the DIET Principal as well as the project team. Every week a report is being prepared report including all the weekly activities, updates & update on daily classes, which will be helpful to all the team member to track the developments with the curriculum.  
Computer classes practical & theoretical sessions of DIET college students.





### Sample format of a Weekly Update.

Center for Sustainable Development					
EARTH INSTITUTE   COLUMBIA UNIVERSITY					
MAHBUBNAGAR ICT CENTER					
COURSE PROCEEDING DOCUMENTATION					
WEEKLY REPORTING					
Days of the Week	Monday	Tuesday	Wednesday	Thursday	Friday
Date	25-03-2019	26-03-2019	27-03-2019	28-03-2019	29-03-2019
ENGLISH					
COMPUTER	No classes due to event in college	Started Practical session of MS-Word for 1st year students	How to write the formal & informal letters in MS-Word	Students have prepared the documents in MS-Word	Given some tasks to the students in MS-Word & the result was good & satisfactory

### Annual Calendar

The project team has learned that there are many interrupted days affecting the attendance of DIET college ICT classes due to academic and annual holidays, examinations, combined with seasonal patterns (such as students going back to their hometowns outside of Mahabubnagar during their exams periods for their preparations months).

The annual calendar is the following-

Month	Days Off	Reasons	Fit for Classes? (Yes/No)	Comments
January	1 2-8	Holiday Exams	YES	
February	0	N/A	YES	<b>Full month of uninterrupted days</b>
March	4 5-8 21 12-31	Maha Shivarathri Holiday Exams (practical) Holi Holiday Academic Holiday	NO	Instead of fixed cohorts, we should think of doing seasonal environmental work during these months
April	1-30 22-30 22-30	Academic Holiday Academic Holiday Exams	NO	Need ideas for summer months / perhaps a new target group

<b>May</b>	1-31 1-31	Academic Holiday Exams (DIET)	<b>NO</b>	Need ideas for summer months / perhaps a new target group
<b>June</b>	1-7	Exams	?	Depending on when students return to Mahbubnagar
<b>July</b>	0	N/A	YES	<b>Full month of uninterrupted days</b>
<b>August</b>	15	Holiday	YES	
<b>September</b>	2,10	Holiday	YES	
<b>October</b>	2,7,8 9-21	Holiday	NO	
<b>November</b>	7-9 21,23	Diwali Holiday	YES	
<b>December</b>	24,25,31 26,27,28	Holiday Exams	YES	

## Revised Curriculum

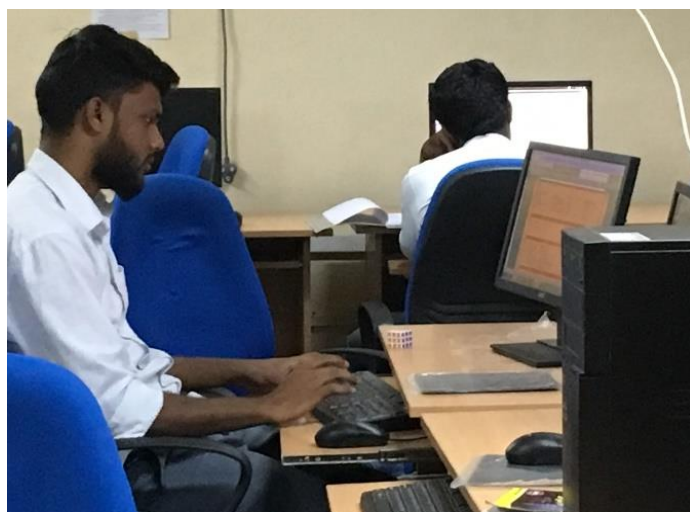
Based on the first year implementation, the team has suggested major revisions to the DIET curriculum. Though the overall framework and topics remain the same, the team has suggested the following-

- Include outcomes to each of the topics taught
- Expand the number of weeks for practice on MS Office.
- Focus on concepts that the teachers will use for actual classroom teaching.

The revised curriculum is as follows-

DIET COURSE - MAHABUBNAGAR				
Summary	Sequence	THEME	Classes / Days of the Week	COMPUTER INFORMATION & TECHNOLOGY
Importances of CD & DVD Drives and its usage	Month 1	MONTH SUMMARY	WEEK WISE	
		Exploration of ICT Resources & projectors	Week 1	Know about your computer. How to switch on the computer, how to switch off the computer, get familiar with the keys on the keyboard, spacebar, enter, etc
			Week 2	About projectors and its usage , Uses of projector in classroom/ Conference room/Seminar hall
			Week 3	Introduction of MS-Office & its suite (Batch wise)
			Week 4	Introduction of MS-Office & its suite (Batch wise)
Importance of Projectors and its usage for different types of projectors	Month 2	MS-Office Package(Word , Power point , Excel)	Week 1	Introduction of MS-Word & its usage(Batch wise)
Introduction of MS-Office , its usage & explanation of MS-Word	Month 3		Week 2	Letter Writing & Creating Documents in MS-word (Batch wise)
			Week 3	Letter Writing & Creating Documents in MS-word (Batch wise)
			Week 4	Letter Writing & Creating Documents in MS-word (Batch wise)
			Week 1	Letter Writing & Creating Documents in MS-word (Batch wise)
Introduction of MS-Power point , its usage & its	Month 4		Week 2	MS-word shortcuts
			Week 3	Introduction of MS-Power point & its usage
			Week 4	Differences between Good & Bad Power point
			Week 1	Complete making own PPT (Batch wise)
			Week 2	Complete making own PPT (Batch wise)
			Week 3	Complete making own PPT (Batch wise)
			Week 4	Complete making own PPT (Batch wise)

Introduction of MS-Excel & its usage & Basic functions	Month 5		Week 1	Complete making own PPT (Batch wise)
			Week 2	Introduction to MS-Excel & its usage
			Week 3	Basic functions of MS-Excel
			Week 4	Basic functions of MS-Excel
Important functions of computer like(Copy,paste,moving the files,etc)	Month 6	Computer components	Week 1	Enter Data in MS-Excel
			Week 2	Enter Data in MS-Excel
			Week 3	Copying or moving a file or folder
			Week 4	Using copy and paste tools to duplicate or move information within a document, Sending e-mails with attached files (e.g. document, picture, video)
Awareness of Cyber Wellness concept	Month 7	Cyber law & Cyber Crimes	Week 1	Transferring files between a computer and other devices
			Week 2	Introduction about Cyber law & Cyber crime
			Week 3	Awareness of Cyber Wellness concept
			Week 4	About Rubrics & its usage (Scoring guide used to evaluate the quality of students)
Environment skills , causes , effects & its protection	Month 8	Environment	Week 1	Introduction of Environment & awareness about environment
			Week 2	Environment causes , its effects & its protection
			Week 3	Plastic Pollution
			Week 4	Deforestation
Previous topic revisions	Month 9	Revision part	Week 1	Revision on previous topics
			Week 2	Revision on previous topics
			Week 3	Revision on previous topics



## Key Lessons for planning for 2019-20 Academic Year

The main takeaways from the first year of the implementation are as follows-

- The existing ICT curriculum is over ambitious and needs to be made simple
- The initial needs assessment of the students attending DIET revealed that many students did not have any exposure to computers before, therefore the curriculum needs to be made very simple.
- The curriculum is not aligned to what the teachers are expected to do professionally. How is ICT aiding in better teaching has not been addressed in the existing curriculum.
- The research team would take a small slice of the curriculum and will make it relevant for the teachers to use in their classrooms.
- The student teachers are required to spend 4 weeks as internships in the classrooms. They are supposed to present on powerpoints and thus the curriculum will need to expand the power point presentation skills needed for classroom teaching.

These suggestions will be discussed with the DIET Principal and the District Collector to make changes in the syllabus covered in the new academic year starting June 2019.

