

Role of ICT in Education and Development – Opportunities and Challenges

Sub Theme: Current Implementation of ICT in Higher Education

Title of the Paper

A Case Study on current implementation of ICT in Arts & Science Colleges in Coimbatore

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ABSTRACT

INTRODUCTION

Growth – is a symbol, yardstick and adds meaning for human life. Our life may be neutral if we remain in the same status for long period. We must show some improvements in our life in every one decade to prove our living life. The same is applicable in Educational institutions. There were many types of teaching and learning took place in and around the world. Today it is the era of ICT enabled teaching and it is on the way in many modern educational institutions. Nowadays more emphasis was given on ICT way of handling classes. Computer Literacy is a must for teachers to manage students effectively in Higher Education. Similarly the management also must spend money to provide facilities like adequate number of computer systems with projector, screen and inter-net facility. This paper is aimed to find out how the ICT way of teaching implemented in Arts and Science Colleges. Whether the teaching and learning made joyful through ICT way? How the teachers felt about ICT way of teaching methods and whether the management provides all basic facilities to implement this modern method.

OBJECTIVES OF THE STUDY:

1. To find out the physical facilities extended by the management to motivate ICT Education.
2. To know the work environment and moral support of management to facilitate teachers to adopt ICT mode of teaching.
3. Whether the teaching and learning joyful in ICT method.

4. Whether the teaching aids (Computer, LCD projector and internet) are adequate to implement ICT enabled Teaching.

METHODOLOGY:

A Questionnaire was prepared and data collected from teachers working in 25 different colleges in Coimbatore City. Out of 125 colleges affiliated to Bharathiar University, we are dealt with 25 colleges. The Rate of samples on Population is 20%. The Colleges were selected if it is accredited by NAAC during the last two years. All the 25 colleges collected data are Arts and Science Colleges affiliated to Bharathiar University or Autonomous colleges and accredited by NAAC. In few selected colleges more than one teacher contacted to collect the data to validate the collected data. Hence data were collected from 40 teachers. Simple percentage and two way analysis were made to analyze the collected data.

SIGNIFICANCE OF THE STUDY

The Retention rate in ICT mode of education is better than normal Chalk and Talk method. We can show videos, pictures and Power point presentation through ICT method while handling classes. Effective Communication is based on increasing the memory power of the students. Through mixing videos and colourful pictures their eyes also involved equally with ears in listening what is going on class rooms.

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THEME: “Role of ICT in Education and Development – Opportunities and Challenges”

Sub Theme: Current Implementation of ICT in Higher Education

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ANALYSIS AND INTERPRETATION**Age of College**

Area	Number of Colleges situated	Percentage
Colleges established before 5 years	03	7.5
Colleges established before 10 years	05	12.5
Colleges established before 15 years	6	15
Colleges established before 20 years	26	65
Total	40	100

Out of forty colleges, more than half of the colleges were established before 20 years. Eighty percent of the colleges were established before 15 years. From this data we could understand the educational background and tradition which prevailed in the city. They also know the education tradition prevailed in the city Coimbatore.

Location of College

Area	Number of Colleges	Percentage
Rural	11	27.5
Urban	16	40
Semi-Urban	6	15
Remote	3	7.5
Hills Station	4	10
Total	40	100

The majority of the colleges situated in urban areas. It is mainly due to the boundary limit of corporation was extended recently in Coimbatore city. Hence of many rural areas and sub urban areas are covered in the boundary limit of urban now. The basic requirements namely electricity, internet connection and telephone connections were done in almost all the colleges. The hills station mentioned are located in Nilgiri district.

Students' Strength of the College

Number of students	Number of Colleges	Percentage
Up to 1,000 Students	6	15
1,000 to 2,000	6	15
2,000 to 3,000	12	30
Above 3,000	16	40
Total	40	100

Many of the colleges located in urban area that is why the strength of the students is also high in many colleges. More than 2,000 students are studying in 70% of the colleges. Only six colleges are there in the first two categories of the above list. They are up to 1,000 Strength College and 1,000 to 2,000 strength colleges. The number of student is not a major fact for implementing ICT Education.

Is PG course also offered?

Is PG offered	No. of Colleges	Percentage
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Yes	34	85
No	6	15
Total	40	100

Most of the colleges (85%) are offering PG course in addition to UG courses. Only about 6 colleges offering UG course only.

Is your College accredited by NAAC

NAAC Accredited	Number of Colleges	Percentage
Yes Grade A+	1	2.55
Grade A	18	45
Grade B	13	32.5
No	8	20
Total	40	100

Out of forty colleges in total, only 32 (80%) colleges were accredited by NAAC in which only one college was accredited with A+ status and 18 colleges accredited with 'A' Grade and 13 colleges accredited with 'B' Grade. Still 8 colleges need to accredit by NAAC.

Is your College Certified by ISO?

ISO Certified	No. of Colleges	Percentage
Yes	30	75
No	10	25
Total	40	100

Out of forty colleges in total, only 30 (75%) colleges were certified by ISO and remaining colleges not even certified by ISO.

Workload of Assistant Professor

Work load per week	No. of Colleges	Percentage
16 hours	10	25
18 hours	22	55
20 hours	08	20

Above 20 hours	nil	-
Total	40	100

In 10 colleges the maximum workload of a teacher in a college is 16 hours per week. In more than half (55%) colleges the work load is 18 hours per week. In 8 colleges it will go up to 20 hours in a week.

This table is prepared to find out the time availability to staff members to sit in the college itself to prepare lessons to teach by using ICT instruments. In 80% of the institutions the time availability is manageable if they come from short distance. The time spent by teachers on travelling is also an important and valuable factor to implement ICT way effectively. Some of them travelled 100kms daily to go and reach work spot and home.

Do you have your own and personal computer system?

Availability of Personal computer	No. of teachers	Percentage
Yes	25	62.5
No	15	37.5
Total	40	100

It is a good sign to note and in favour to implement ICT way of teaching. Nearly two third of the teachers working in Coimbatore area have own personal computer. Another statistics validate this statement that, In India, Coimbatore is the city where we have more computer systems in homes. Possessing computer mere will not serve the purpose it depends upon the time they spend to operate the computer with relation to prepare lessons, videos and pictures for teaching.

Using computer while teaching?

Using system while teaching	No. of Teachers	Percentage
Yes	22	55
No	18	45
Total	40	100

It is again happy to note that more than half of the teachers are using computers while teaching, Even though it is not made as compulsory. Of course it will not make as a regular practice by compulsion. Most of the teachers realized that teaching through computer is more effective and easier. At the same time

an equal number of teachers are in the opposite side of using computers. We need to find out the specific reasons for not using the systems in teaching.

Is ICT Education made Compulsory by Management?

ICT Compulsory	No. of Colleges	Percentage
Yes	10	25
No	30	75
Total	40	100

Whether we call this era either as a computer era or ICT era, 75% of the colleges are not making this ICT mode as compulsory to teach lessons. They know pretty well that no good thing will be practiced easier; it will come slowly and capture the major portion of teaching if the teachers understand its importance. Only in 10 colleges ICT Education made as compulsory in Arts and Science Colleges.

Is Saturday holiday in your college?

Saturday holiday	No. of Colleges	Percentage
Only one Saturday holiday	04	10
All Saturdays are holiday	06	15
Two Saturdays holidays	20	50
All Saturdays are working day	10	25
Total	40	100

Out of 40 Arts and Science colleges in 50% of the colleges two Saturdays are holidays, in 25% of the colleges all Saturdays are working day. In 6 colleges all Saturdays are holiday. At the same time in 4 colleges only one Saturday in a month is holiday. Either More holidays or no holidays are unfavourable situation to implement ICT enabled way of Education. By announcing more holidays teachers made lazy and busy with some personal and other things. No holiday made them tired and they never ready to spend one golden Sunday on academic purpose. Alternative Saturday may be announced as working day to facilitate ICT Education.

Are Basic facilities (Internet, LCD and systems) available to enable ICT in Education?

Availability of Facilities	Number of Colleges

	Yes	Percentage	No	Percentage
Internet	30	75	10	25
Audio Video aids	14	35	26	65
LCD available Dept wise	10	25	30	75
LCD available Class wise	11	27.5	29	72.5
LCD available in Seminar hall only	18	45	22	55

This table tells us the availability of electronic instruments used in ICT way of teaching. In 10 colleges the department has no internet connections. It is again a negative point to note that still 65% of the colleges no audio video aids are available. In 22 arts and science colleges LCDs are available only at seminar halls.

Ratio of Staff to Systems availability in the department

Number of staff & systems available in the dept	No. of Colleges	Percentage
Very Low	14	35
Low	10	25
Adequate	06	15
Staff requested to use Laboratory	05	12.5
No sufficient data	05	12.5
Total	40	100

The ratio between Staff to System availability is considered as better and good when there is the ratio between the systems available to staff is one to one and two systems for every one requires system. The Qualirt

Reason for ICT mode of teaching

Is ICT Joyful	True	Percentage	False	Percentage
Students like the method of ICT mode of teaching	34	85	6	15
Teaching becomes easy due to ICT	32	80	8	20
ICT mode is Lively	30	75	10	25
ICT method reduced the workload of teaching	32	80	8	20
Economic background of students is not satisfactory to use ICT	30	75	10	25