
A Study on ICTs Among Arts and Science Colleges in Kanyakumari District

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"ICT" is the Information and Communication Technologies. ICT is a medium of teaching and learning. Nowadays, it is becoming increasingly popular among colleges. In simple words, it is the use of computers, internet, laptops and projectors in the field of education. The application of ICT provides vast array of powerful tools that may help in transforming the present isolated, teacher- centered and text- bound classroom into rich student-focused, interactive knowledge environment. Teachers must have knowledge and skills to use the new digital tools and resources to help all students achieve high academic standards. The use of ICTs can change learner's perception and understanding of the content. Worldwide research has shown that ICT can lead to improved student learning and better teaching methods. This paper focuses on study of ICTs among arts and science colleges in Kanyakumari District. A report made by the National Institute of Multimedia Education in Japan, proved that an increase in student exposure to educational ICT through curriculum integration has a significant and positive impact on student achievement, especially in terms of "Knowledge Comprehension" · "Practical skill" and "Presentation skill" in subject areas such as mathematics, science, and social study.

Keywords: Communication technology, Multimedia Education and Power point.

Introduction

The education systems around the world are under increasing pressure to use ICT to enhance the knowledge of skills and students in the ensuing years of the 21st century. Power point presentations engages both right and left brained thinkers during lecture, which promotes self-paced learning. Through ICT, students can experience various stages of learning such as critical thinking, problem solving, guided instruction, group monitoring etc.

Advantages

- Through ICT, images can easily be used in teaching and improving the retentive memory of students.
- Through ICT, teachers can easily explain complex instructions and ensure students' comprehension.
- Through ICT, teachers are able to create interactive classes and make the lessons more enjoyable, which could improve student attendance and concentration.

Disadvantages

- Setting up the devices can be very troublesome.
- Too expensive to afford
- Hard for teachers to use with a lack of experience using ICT tools

Objectives of the Study

- To find out the various ICT facilities in arts and science colleges
- To find out the influence of ICT facilities especially internet in increasing the academic efficiency of students
- To find out if there is difference of opinion between the students of Arts& Science and B.Ed. regarding the benefit of using Information Communication Technologies
- To identify the problems encountered by the students in using ICT facility

Methodology

The present study was undertaken in Kanyakumari District of Tamil Nadu with special reference to 3 colleges. Major input for the study was obtained through survey Method. The questionnaires were distributed among a sample of 75 Arts & Science students selected at random from three colleges in Kanyakumari District.

Analysis 1 Questionnaire distribution among college students

Gender	Questionnaire distribution	% distribution
Male	45	60
Female	30	40
Total	75	

Out of 75 questionnaires, the respondents are 45 male students and 30 female students

Analysis 2 ICT facilities in various Arts & Science Colleges

ICT facilities	Yes	No
Computer	60	15
Projectors	55	20
Internet connection usage	60	15
Smart phone	35	40
CCTV cameras	30	45
Laptop usage	50	25

Most of the students avail facilities like computer, projectors, internets and laptops for studying and completing their home works available in their college premises

Analysis 3 Knowledge of usage of different ICT tools

Gender	Pen drive	scanner	Internet Accessing	Email	Social media	Online Games
Male	50	30	50	40	45	55
Female	22	10	20	10	15	10
Total	72 (96%)	40 (53%)	70 (93%)	50 (66%)	60 (80%)	65 (87%)

Most of the male and female students are using pen drives, internet and playing online games

Analysis 4 Level of confidence in doing computer tasks

	Never	Rarely	Sometimes	Often	Always
Work in text using word processor program	4	8	5	18	40
Search internet to collect information	2	5	15	15	38
Use spreadsheet programmes like Excel	15	10	30	12	8
Create a database	20	30	7	10	8
Install software	5	12	23	14	21
Take printouts	5	10	10	45	5
Create power point slides	12	8	15	30	10
Download/upload materials from website	11	3	15	36	10
Edit images	10	30	12	14	9

Calculating mean= $75/2=37.5$

Working in text using word processor program, searching internet to collect information, taking printouts, downloading uploading materials from websites, creating power point slides is often done. Using spreadsheet programmes like excel, installing software is sometimes done. Creating database, editing images is done rarely

Analysis 5

Null Hypothesis: There is no difference of opinion between the students of Arts& Science and B.Ed. regarding the benefit of using Information Communication Technologies

Alternative Hypothesis: There is difference of opinion between the students of Arts& Science and B.Ed. regarding the benefit of using Information Communication Technologies

Benefit of using ICTs	Students			Total
	Arts	Science	B.Ed.	
Yes	25	18	12	55
No	5	9	6	20
	30	27	18	75

Reference: Primary Data

$$E_{11} = \frac{RT \cdot CT}{N}$$

$$= \frac{55 \cdot 30}{75} = 22$$

Expected Frequencies

22	19.8	13.2
8	7.2	4.8

<i>O</i>	<i>E</i>	<i>O-E</i>	$(O-E)^2$	$(O-E)^2/E$
25	22	3	9	0.4091
18	19.8	-1.8	3.24	0.1636
12	13.2	-1.2	1.44	0.1090
5	8	-3	9	1.125
9	7.2	1.8	3.24	0.45
6	4.8	1.2	1.44	0.3

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

$$\text{Degree of freedom} = (r - 1)(c - 1) = (3-1)(2-1) = 2 \cdot 1 = 2$$

The critical value of X^2 with 2 degree of freedom is 5.99. Since $2.5567 < 5.99$, therefore we accept the null hypothesis and conclude that there is no difference of opinion between the students of Arts& Science and B.Ed. regarding the benefit of using Information Communication Technologies at 5% level of significance.

 Analysis 6

Problems in usage of ICT facilities

	Male	Female	Total
Server shutdown	42	39	81
Current cuts	55	32	87
Eye problems	35	25	60
Back pain	25	30	55
Others	14	28	42

It is found that current cuts and server shutdown are the main problems in usage of ICT facilities

Suggestions

- Students should have access to various ICT tools to cope up with the new environment
- Assignments should be given to students such that they have to access internet and collect information to increase knowledge
- The colleges should conduct computer courses so that each and every department will be aware of ICT programmes
- The colleges should be equipped with modern ICT facilities
- Computer labs should be installed with various multimedia software.

Conclusion

ICT is undoubtedly a boon in the field of education. The full benefit of the technology can be realised only by enhancing the technology skill of both faculty and students. Multimedia packages help to present information in aesthetically more attractive methods turning classrooms into interactive sessions

Reference

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