



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2015; 1(8): 480-485  
www.allresearchjournal.com  
Received: 21-05-2015  
Accepted: 23-06-2015

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## **A Study on Information, Communication Technologies Learning Practices in Educational institutions in Coimbatore**

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### **Abstract**

Information and communication technologies (ICTs) are widely acknowledged as important resources for socio-economic development. Due to resource constraints, shared access forms the dominant mode of access to these technologies in most developing countries. Governments, non-governmental institutions and business entrepreneurs have invested significant amounts of human and financial resources in public libraries, tele-centers, internet cafés and other forms of public access, without clear evidence on what the ultimate outcomes will be and the actual costs. This work explains about the survey regarding the awareness access and usage of information, communication technologies in educational field. This study involves mainly on investigations on preference of various ICT class such as lecture class, ICT Class, self-studying and E-Learning. For this purpose a set of questionnaire was prepared and were made to be answered by the college students, around 60 students were surveyed to find out various information's regarding the ICT classes. As a result this survey it was determined that proper usage of ICTs will increase its significances to students.

**Keywords:** ICT (Information, Communication Technologies), Educational Planning, Knowledge skills, learning skills.

### **1. Introduction**

Information and Communication Technology (ICT) is widely considered as the most important revolution humankind has experienced since the industrial revolution and the development of movable type printing techniques. A country's development depends on the extent of use, speed of access, and skilled application of ICT systems. Computer and communications technologies have drastically changed the entire human activities including library and information field. Now a day -libraries are deeply engaged to modernize operations & activities to provide fast, integrated, interactive and comprehensive services. In the same direction with IT thrust the concept of digital library has emerged substantially. ICT Classes use all interactive modules like videos and presentations and these visually attractive methods of teaching becomes appealing to students who are already struggling with the traditional method of teaching in a classroom. In fact, ICT Classes are almost like watching movies as sometimes, animated visuals are used to teach a point. This kind of visual is both eye-catching and young students can easily relate with them. This is because the audio-visual senses of students are targeted and it helps the students store the information fast and more effectively. And then, there is the advantage of utilizing much of the time wasted earlier in drawing or preparing diagrams on board. Smart boards have all these information in memory and can be presented during the time of class lectures and thus, the time saved can be used in more important things.

Some students and teachers have problems with chalk dust and they tend to suffer from allergic reactions. The smart boards save you from such distress and won't let you develop any health issues later. Smart boards are a lot smarter when it comes to field trips which are impossible with textbooks. A field trip to the deserts of Sahara or the rainforests of the Amazon basin becomes easy with visuals in the smart boards of ICT Class. These visuals are definitely more attractive than those descriptions in a few lines of a textbook. One of the main reasons behind the constant increase in popularity of ICT Classes is the fact that this kind of education is perfect for all kinds of students. A classroom has students with varied

power of understanding and learning, and studying from notes and other materials becomes difficult for some students. But the use of ICT Classes and modern technology eases the learning process for all students. Moreover, this kind of education in class promotes more interaction between teacher and student with more participation from both sides. When you take the negative side of this kind of smart education, there are just a few when compared to the myriad advantages it offers to students. Some technical fault that might arise during a class lecture is a common concern among those lobbying against smart technologies in classroom education. Then, there is the costing factor as well that is preventing schools to adopt this technology. With smart education comes the problem of high cost of education. The possibilities or advantages of ICT Class are endless. Although adopting such a new concept might be a tough decision for many, but the technology can create a new opening for the education sector.

### Statement of Problem

The ICT classes the innovating a new education trends. Through ICT classes growing technology not satisfied students for the level of study. As a model, public access to ICTs has experienced success and failure, leading to both reinforcement of the belief that the model should be expanded and strengthened; as well as claims that public access ICTs are ultimately ineffective or even counterproductive from the development perspective. The results show that there is limited conclusive evidence on downstream impacts of public access to ICTs. The evidence that does exist suggests that the public access ICT model is not living up to the expectations placed on it. This is not necessarily because public access has had no impacts, but because its impact is particularly difficult to identify and measure.

### Review of Literature

1. *“barriers to the introduction of ICT into education in developing countries: the example of Bangladesh”*. Md. Shahabud Hossain Khan, Mahbub Hasan, Che Kum Clement. The aim of this paper is to present a comprehensive review of international articles relating to barriers encountered when introducing ICT into classrooms. This review will help identify the factors that influence teachers’ decisions whether or not to implement ICT in teaching-learning situations.
2. *“skill Challenges in Adoption and Use of ICT in Public Secondary Schools, Kenya*. Laaria Mingaine. This section of paper presents data analysis and interpretation of research findings. Mugenda (2003) defines data analysis as categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions with its purpose being to reduce data to intelligible and interpretable form so that relation of research problems can be tasted.
3. *“ICT for Quality of Education in India”* Sharmila Devi, Mohammad Rizwaan & Subhash Chander. The paper examines certain important issues related with the effective implementation of ICTs in all levels of education and provides suggestions to address certain challenges that would help in the implementation of ICTs in education and simultaneously increasing Quality of education.
4. *“ICT in primary schools: explaining the integration in*

*relation to the context.”*Christina hadjithoma & nikleia eteokleous. This paper integrates the results of two studies looking at ICT implementation in the Cypriot centralized and bureaucratic educational system, and attempts to interpret them differently from previous studies. It is suggested that unless the system is transformed and modernized, the institutionalization of innovations, such as ICT, faces the threat of failure.

5. *“Usage and Impact of ICT in Education Sector; A Study of Pakistan.”* M. Wasif Nisar, Ehsan Ullah Munir and Shafqat Ali shadDepartment of Computer Science Comsats Institute of Information and TechnologyWah Cantt, Pakistan. The major finding of this research is that availability and usage of ICT is very essential to improve the educational efficiency of students. This indicates that availability of ICT in Education is supportive for the students to improve their learning skills as well as latest technologies of ICT are helpful for the students to better prepare their assignments and projects.

### Objective

- To analyses the significance of ICT in education.
- To determine the preference and attractive features of ICT to students.
- To study the satisfaction level of students in using ICT classes.

### Methodology

This literacy focused practical session introduces and engages participants with each of the methodologies through an ICT based teaching task. Participants will learn how to easily set up and maintain a digital portfolio as they investigate a range of suitable online tools and resources which can be applied in their own classrooms to support planning, teaching and learning. The session concludes with an overview of session two’s content and simple actions teachers can take to use these teacher friendly resources in their own classroom. The questionnaires were personally distributed to 60 students from college received (95%). The data collected through the questionnaires and it was analyzed and tabulated through the statistical tools (spss), Microsoft Excel version 2007 was also used to depict the Figures such as average, simple percentages.

### Data Collection

#### Details about Age, Gender, College, Course, Resident Area

Demographic	No. of respondents	Percentage
Age		
15-25	27	47.36%
25-30	18	31.57%
30 above	12	21.07%
Gender		
Male	18	31.57%
Female	39	68.42%
College		
Arts & science	18	13.57%
Engineering	9	15.78%
Medical	3	5.26%

UG polytechnic	9	15.78%
PG polytechnic	8	14.03%
Other	10	17.54%
Course		
B. com	13	22.80%
BCA	9	15.78%
BSC	15	26.13%
BE	8	14.03%
MBBS	4	7.0%
EEE	5	8.77%
Other	3	5.26%
Resident area		
Urban	36	43.85%
Rural	21	36.84%

**Table 1:** Students Preferences towards Ict Class

Area	Lecture class	Smart class	Self-studying	E-learning	Total
Peelamedu	8(47%)	4(24%)	5(29%)	-	17
Sulur	2(50%)	2(50%)	-	-	4
Kalapatti	6(50%)	-	3(25%)	3(25%)	12
Avinashi road	3(23%)	4(31%)	3(23%)	3(23%)	13
Singanallur	5(46%)	-	6(54%)	-	11
Total	24(42%)	10(18%)	17(30%)	6(10%)	57

This table shows that maximum respondents the lecture classes (24 respondents) 42% of students were preferred. Among the total students (6respondents) 10% only they prefer the E-Learning.in ICT classes. Total no students surveyed were 60 in which 3 students did not respond for questionnaires.

**Table 2:** Features of ICT Classes

Area	Interactive	Learning	Games	Assignment/seminar presentation	To know current environmental issues	To attend conference	Total
Peelamedu	6(43%)	2(14%)	4(29%)	-	-	2(14)%	14
Sulur	3(18%)	5(29%)	-	6(35%)	3(17.64%)	-	17
Kalapatti	1(25%)	-	-	3(75%)	-	-	4
Avinashi road	3(16%)	7(39%)	-	-	5(27.77%)	3(17)%	18
Singanallur	2(50%)	-	1(25%)	-	1(25%)	-	4
Total	15(26%)	14(25%)	5(9%)	9(16%)	9(15.78%)	5(9)%	57

In the above table the maximum 43% (6 respondents) for the interactive features in ICT classes. And the minimum 17% (3 respondents) for to attend the conference in ICT classes.

Useful for learning purpose, highly significant to know information regarding environmental issues.

**Table 3:** Significance of ICT Classes

Area	Increasing memory power	Interesting	Easy to understand	Concentration on subject	More knowledge other than subject	Total
Peelamedu	4(40%)	-	6(60%)	-	-	10
Sulur	1(25%)	-	1(25%)	-	2(50%)	4
Kalapatti	5(25%)	4(20%)	6(30%)	2(10%)	3(15%)	20
Avinashi road	2(33%)	2(33%)	-	2(33%)	-	6
Singanallur	6(35%)	5(29%)	1(6%)	4(24%)	1(6%)	17
Total	18(32%)	11(19%)	14(25%)	8(14%)	6(10%)	57

This table shows what the respondents feel toward the significance of ICT classes. This table shows than increasing memory power 32%(18 respondents) out of total number of

students surveyed feel that ICT classes increases the subject knowledge, increasing the memory power and easy to understand the subject.

**Table 4:** Difficulties in acquiring ICT classes

Area	Cost	Time	Lack of internet accessibility	Downloading problems	Technological problems	Total
Peelamedu	6(50%)	-	-	4(33%)	2(17%)	12
Sulur	2(18%)	5(45%)	-	3(27%)	1(9%)	11
Kalapatti	3(23%)	2(15%)	3(23%)	3(23%)	2(15%)	13
Avinashi road	4(36%)	-	6(54%)	1(10%)	-	11
Singanallur	3(30%)	1(10%)	2(20%)	4(40%)	-	10
Total	18(32%)	8(14%)	11(19%)	15(26%)	5(9%)	57

This table shows that there are various difficulties in acquiring ICT classes. Among the total (32%) 18 respondents of student said the cost difficulties in ICT classes. Students belonging to singanallur (10%) area said

that ICT classes were costly time consuming and problems relating to internet accessibility and downloading problems.

**Table 5: Skill developed by ITC student**

Area	Personal skill	Communication skill	Innovative skill	Creativity	Presence of mind	Self – confidants	Improving technological skill	Total
Peelamedu	2(25%)	-	2(25%)	-	3(37%)	-	1	8
Sulur	-	3(33%)	4(44%)	-	-	2(22%)	-	9
Kalapatti	2(12%)	3(22%)	3(22%)	3(22%)	-	3(22%)	-	14
Avinashi road	6(37%)	2(12%)	2(12%)	-	-	-	6(37%)	16
Singanallur	4(40%)	-	-	6(60%)	-	-	-	10
Total	14(25%)	8(14%)	11(19%)	9(16%)	3(5%)	5(9%)	7(12%)	57

The above table shows that among the 5 areas surveyed 25% respondents said that ICT develops the personal skills of the students. It also gives information that maximum of number of respondents were in avinashi area (i.e.) Upto 16 members.

Those 16 members said that ICT classes provides personal skills, communication skills, innovation skills and improving technological skills

**Table 6: Learning Station in ICT**

Statement	Agree	Strongly agree	Neither agree nor dis agree	Dis agree	Strongly dis agree	Total
ITC enrich teachers & students relationship	4(40%)	3(30%)	3(30%)	-	-	10
Its helps to update and learning	2(22%)	3(33%)	2(22%)	1(11%)	1(11%)	9
ITC will increase the confidence level	2(17%)	3(25%)	2(16%)	3(25%)	2(16%)	12
ITC helps to increase the memory power	2(50%)	1(25%)	-	1(25%)	-	4
It helps to gain knowledge	1(12%)	2(25%)	2(25%)	1(12%)	2(25%)	8
ITC makes student smarter	3(30%)	2(20%)	2(20%)	2(20%)	1(10%)	10
Total	15(26%)	16(28%)	11(19%)	7(12%)	8(14%)	57

This table shows that 28% strongly agree that ICT enrich teachers and students relationship, helps to updated learning, increases the confidence level of student, increases the

memory power, gain knowledge as well as make students smarter whereas 14% strongly disagree the above statements.

**Table 7: Satisfaction Level of Skill's used in ICT**

Statement	Satisfied	Highly satisfied	Neutral	Dis satisfied	Highly dis satisfied	Total
I am able to use application (word processing spreadsheet power point ) for learning	7(33%)	5(24%)	3(14%)	6(29%)	-	21
I can use various applications to do assignment, research, and projects.	3(30%)	1(10%)	2(20%)	3(30%)	1(10%)	10
I am able email, exchange information And ideas and discussing	3(25%)	3(25%)	3(25%)	2(17%)	1(8%)	12
I am able to use internet resources to prepare my assignment, project and research.	3(22%)	4(29%)	2(14%)	3(22%)	2(14%)	14
Total	16(28%)	16(28%)	10(18%)	11(19%)	4(7%)	57

This table show that among the total number of students surveyed 33% were satisfied that they were able to use application for learning, 30% of students said that they can use various application to do assignment, research and

project 25% of respondents were highly satisfied that they are email, exchange information and ideas and 29% were highly satisfied that they were able to use internet resources to prepare their assignments, projects and research.

**Table 8: Tactics Using In ICT**

Area	Use educational softwares	Find & research information	Surf the internet	writing	Downloading music	Other specify	Total
Peelamedu	4(40%)	2(20%)	-	4(40%)	-	-	10
Sulur	-	6(50%)	4(33%)	-	2(17%)	-	12
Kalapatti	2(33%)	-	-	2(33%)	-	2(33%)	6
Avinashi road	4(40%)	-	-	4(40%)	-	2(20%)	10
Singanallur	4(21%)	6(32%)	-	5(36%)	4(21%)	-	19
Total	14(25%)	14(25%)	4(7%)	15(26%)	6(11%)	4(7%)	57

The above table shows that maximum number of respondents were from singanallur area (19) where, 36% of respondents said that they prefer writing as the methodology used in ICT.

Maximum of 33% preferred the use of educational software. Among all the areas surveyed 25% preferred the by researching information.

**Table 9:** ITC Classes Frequently Attended

Area	Subject related	General topic	Entertaining	Seminar	Conference	Total
Peelamedu	6(60%)	-	4(40%)	-	-	10
Sulur	4(24%)	5(30%)	4(24%)	4(24%)	-	17
Kalapatti	10(10%)	2(20%)	2(20%)	3(30%)	2(20%)	10
Avinashi road	2(20%)	3(30%)	1(10%)	1(10%)	3(30%)	10
Singanallur	2(20%)	4(40%)	2(20%)	2(20%)	-	10
Total	15(26%)	14(25%)	13(23%)	9(16%)	6(11%)	57

This table show that the maximum respondents were from sulur area (17 respondents).60% of respondents belonging to peelamedu area said that students frequently preferred entertainment classes after which 30% of students preferred conference and very few percentage of students preferred subject related ICT classes

**Table 10:** How ICT Helps Student

Area	Good	Average	Bad	Very bad	Total
Peelamedu	2(17%)	4(33%)	4(33%)	2(17%)	12
Sulur	3(60%)	1(20%)	1(20%)	-	5
Kalapatti	2(20%)	4(40%)	2(20%)	2(20%)	10
Avinashi road	3(38%)	2(25%)	-	3(38%)	8
Singanallur	7(32%)	5(23%)	6(27%)	4(18%)	22
Total	17(30%)	16(28%)	13(23%)	11(19%)	57

Among the total number of students surveyed maximum number of students said that the ICT classes were good enough and helpful for students (30%) and just 20 of said that ICT classes were not useful at all. The total number of students surveyed was 57 students in which 3 students (respondents) did not respondents for any of the questions.

**Findings**

- This survey found that around 42% of total responders prefer lecture class through ICT
- This study found that 26% if responses find ICT classes to be interactive
- In this survey we found that around 32% of total respondent prefer that to increase the memory power through the ICT classes.
- In the study we found that 32% of total responded prefers ICT classes based on the cost
- Through this survey, found that 25% of student respondents were preference ICT classes to develop their personal skill to gather the knowledge
- Through the ICT class 30% of respondent ICT class may makes the students smart class
- The student found that 25% if total respondent find ict classes to be use educational software ICT make easy to find the reserve information
- 26% of respondent were said that ICT classes were frequent attended based subject relation
- This survey found that around 43.85% of total respondent says that ICT classes were mostly preference only in urban area
- This survey found that an around 68.42% of total respondent of female only proffering ICT classes

**Conclusion**

The findings and information gathered are used to arrive at a conclusion regarding the awareness, access and usage of information and communication technologies in education

sector. Students develop competence in using ICT for tasks associated with information access and management, problem solving, decision making, communicating, creative expression, and empirical reasoning etc. It has been evaluated that ICT classes were said to be interactive since in icts relationship between the students and teachers is good. ICT classes comprise of smart classes of E-Learning etc. These new methods of teaching are more interesting and informative. This in turn increases the interest towards learning through ICT. Various skills are developed by ICT classes such as personal skills communication skills, innovations skills and creativity Skills, Presence of mind etc. Since ICT classes is based on using new methodology such as using educational soft ware’s, research in formations, internet surfing, writing etc. This makes the students to be updated with present technologies and skills. Each student will have to do such researches, soft ware learning etc on their own. This increases the persons self confidence and makes the students smarter rather than just studying through books and useful method of learning. To conclude, ICT is essential so that students can develop knowledge, skills and understanding around the fundamental logic and conventions underpinning ICT usage and the ability to transfer these from one ICT environment to another. ICT will develop detailed longitudinal studies of nations as they move forward and compile more extensive statistics demonstrating the validity and efficiencies of a number of information and communications technologies and their effective use. The ultimate success of ICT for learning will be attained when we stop marveling about the ICT and apply our minds and emotions to the wonders of learning.

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