Use of ICT in Teaching at Secondary School Students in Jalpaiguri District, West Bengal

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Abstract: The main objective of the paper aims to finding and key points from a review of significant part of the ICT resources availability and uses of ICT at the time of teaching –learning process in secondary school in Jalpaiguri district, West Bengal. For this research purpose a questionnaire which is prepared in three dimension (availability of resources, uses by student and uses by teacher) are applied to 142 students. The research is organized with descriptive type research and survey method. The data is analyzed through two types of statistic. One is descriptive statistic and other is inferential statistics .In descriptive statistic where is follow mean, S.D, and correlation. In inferential statistic where is used t test also to find which area is available of ICT resources. After end of the study it is determined that ICT resources available in urban area than rural area. There is a difference to use of ICT between male and female students and here is low correlation to use of ICT resources between teacher and students at the time of teaching learning process.

Key words: Information and Communication Technology (ICT); Computer uses in education; Secondary education; Jalpaiguri; Internet.

❖ INTRODUCTION:

Today, from the time we wake up the morning to the time we sleep, we are surrounded by media, such as news papers, radio, T.V. and computer. Some time, we are not even aware that we are surrounded by media. knowing and using information and communication technology(ICT) tools is important in today s fast changing society; however, we are very often confused about what these media are.

According to United Nation Development Programme (UNDP) definition, ICTs are basically information-handing tools—a varied set of goods, applications, and services that are uses to produce, store, process, distribute, and exchange information.

ICT includes both old and new tools. Old ICT tools mainly include radio, T.V and telephone. New ICT tools mainly include computers, satellite, wireless technology, and the internet. These different tools are now able to work together and combine to form our networked world—a massive infrastructure of inter connected telephone services, standardized computing hardware, the internet, radio, and T.V, which reaches into every corner of the globe.

ICTs not only refer to the latest computer and the Internet –based technologies but also refer simple audio –visual aids such as transparencies, slides, cassette and video recorders, radio, television and film.

A key component in acquiring such understanding may be attention to the "pupil voice"(Keys & Fernanders,1993;Blatchford,1996;Rudduck et al.,1996). Rudduck and Flutter(op cit)maintain that 'we need to tune in to what pupils can tell us about their experiences and what they think will make a difference to their commitment to learning and, in turn, to their progress '(p.75).Recent research on pupils 'perspective in the UK has been linked either to the development of school-based strategies based on consultation with pupils on effective class room practice, or to aspects of curricular evaluation (see Lord and Harland '2000'for a review) but few studies have focused specifically on secondary pupils' views on their current classroom use of ICT in teaching and learning.

ICT are making dynamic changes in society. ICT greatly facilitate the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational systems.

Over the past decades, information and communication technology (ICT) has become gradually more important to school and universities. There are wide of research exists to explore and study the use of ICT in the process of learning and teaching in secondary schools.

❖ DEFINITION OF THE STUDY:

ICT is the technology required for information processing, in particular, the use of electronic computer, communication devices and software applications to convert, store, protect, process, transmit and retrieve information from anywhere, anytime.

❖ OBJECTIVES OF THE STUDY:

The objectives are discuss below –

1. To study the availability of ICT resources in Secondary schools in Jalpaiguri district.
2. To study the uses of ICT during teaching –learning process by Secondary school students in Jalpaiguri district.
3. The relation uses of ICT during teaching learning process by teacher and student in Secondary school of Jalpaiguri district.

❖ HYPOTHESIS:

H_{O1} : There is no significance difference between availability of ICT resources in urban and rural Secondary school in Jalpaiguri district.

H_{o2}: There is no significance difference in use of ICT between urban and rural students in Secondary school of Jalpaiguri district.

H_{o3}: There is no significant difference between male and female students in use of ICT during their teaching learning process in secondary school of Jalpaiguri district.

H_{o4}: There is no significant relationship between use of ICT by teacher during teaching and use of ICT by secondary school students.

❖ RESEARCH METHOLOGY

Descriptive type research and technique followed on survey method. This method was used by the researcher to study the vivid description on the application and uses of ICT among the students of secondary level in Jalpaiguri district.

Sample and sampling

Researcher selected 7 secondary schools in Jalpaiguri district randomly. Hence total sample of this study consisted 142 students. These samples are selected by using random sample method.

Tools used

The necessary tools are given bellow-

Questionnaire (to be filled by the student):

It was included 40 items. Here are three major dimensions (availability of ICT resources uses of ICT by students and uses of teachers).

1. To study the availability of ICT resources in secondary schools in Jalpaiguri district.
   For the first objective, the researcher will use the questionnaire tool and observation to find out the availability of ICT in the secondary schools of Jalpaiguri district. Here is use two point scale (Yes or No).
2. To study the uses of ICT by teacher during teaching.
   For the second objective, the researcher will use the questionnaire tools will be used to study the teacher's use of ICT in secondary classroom programme. Here in use two point scale (Yes or No).
3. To study the uses of ICT by students in school.
   For the third objective, the researcher will use the questionnaire tools will be used to study the student's use of ICT during their teaching learning process. Here in use two point scale (Yes or No).

Statistic Used

Descriptive statistic	Inferential statistic
Mean, S.D and Correlation	T test

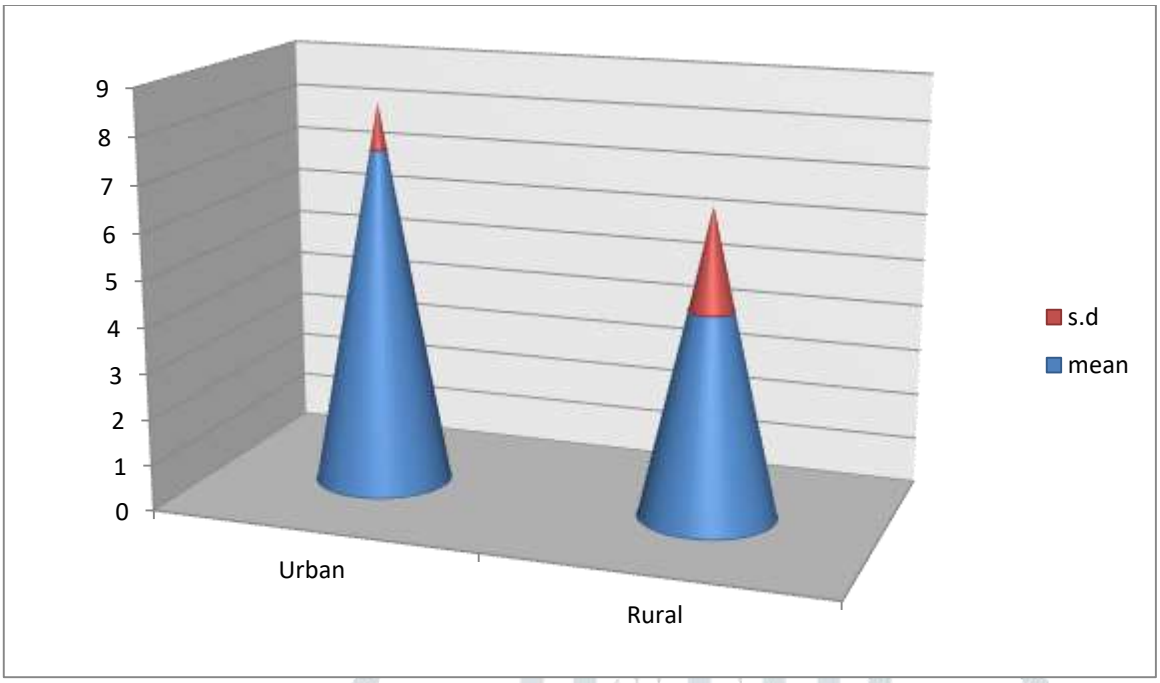
❖ ANALYSIS OF THE RESULTS:

H_{O1}: There is no significance difference between availability of ICT resources in urban and rural Secondary school in Jaipaiguri district.

Table- 1 Shows the number of samples, mean, S.D and 't' value of different schools different location i.e., Urban, Rural schools.

Table -1: The result of the analysis can be founded at a glance the table given below-

Group	N	MEAN	S.D.	df	't' value	Table value	Result
Urban	42	7.340909	1.010254	140	10.7924	1.98 at 0.05 level	Significant
Rural	100	4.47	2.180978			2.61 at 0.01 level	



Results

From the above table it finds out that the necessary value for judging significance with a degree of freedom 140 is 1.98 at 0.05 level of significance. Since our calculate t value that is 10.7924 which is lordly than the table value. So reject the null hypothesis at 0.05 level of confidence. Though there is difference in the mean of two groups apparent in the above table. So we can say that there is significance difference between availability of ICT resources in urban and rural Secondary school in Jalpaiguri district.

Discussion

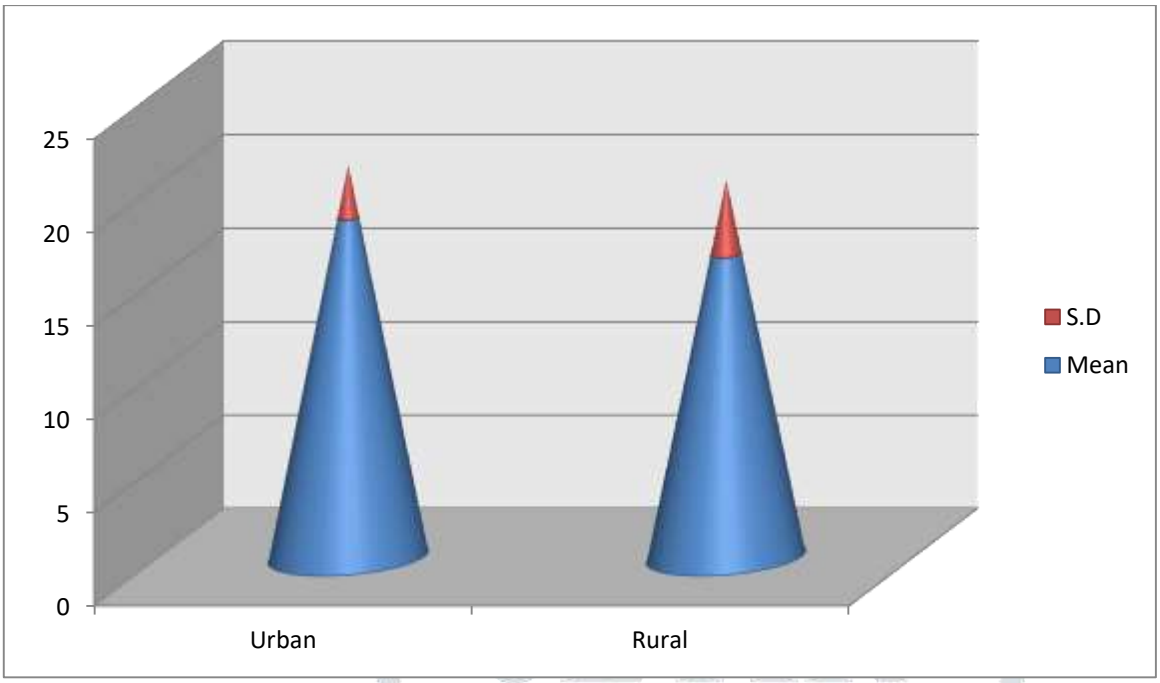
Above result it find out that is a significant difference between availability of ICT resources in urban and rural Secondary schools. The study is invention that the required balance of awareness about computer and internet is not there. The real power of the computer is disclosed in the internet. But the infiltration of computer and internet is still far from desired.

H_{O2}: There is no significant difference in use of ICT between urban and rural students in secondary school of Jalpaiguri district.

Table-2 Shows the number of sample,Mean, S.D and 't' value of different students in different location i.e urban and rural areas students.

Table-2: The result of the analysis can be founded at a glance the table given below-

Group	N	Mean	S.D	df	't' value	Table value	Result
Urban	42	18.18	2.80591342	140	3.3718	1.98 at 0.05 level	Significant
Rural	100	16.23	3.951358288			2.62 at 0.01 level	



Results

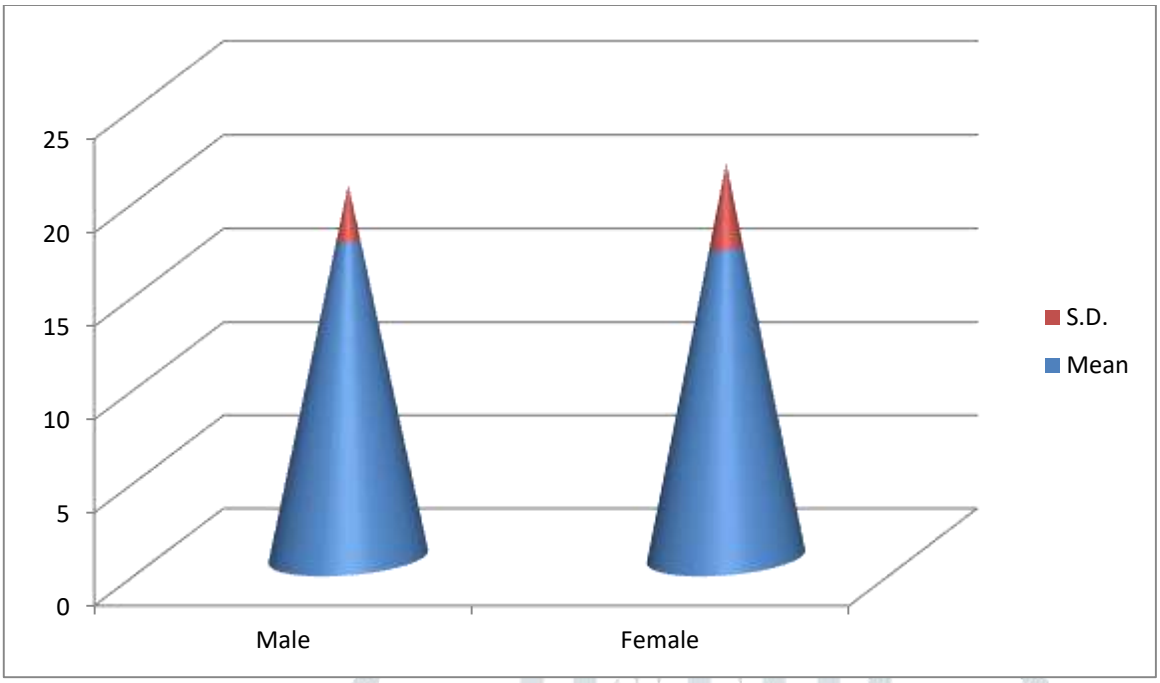
From the table it finds out that the necessary value for judging significance with a degree of freedom 140 is 1.98 at 0.05 level of significance. Since our calculate t value that 3.3718 which is lordly than the table value. So the null hypothesis is reject at 0.05 level of confidence. Though there is difference in the mean of two groups apparent in the above table. So we can say that there is significance difference between use of ICT between rural and urban students of Secondary school in Jalpaiguri district.

H_{O3}: There is no significance difference between male and female students in use of ICT during their teaching learning process in secondary school of Jalpaiguri district.

Table-3: Shows the number of sample, Mean S.D and 't' value of different students gender i.e. Male ,Female students.

Table-3: The result of the analysis can be founded at a glance the table given below-

Group	N	Mean	S.D.	df	't' value	Table value	Result
Male	74	17	2.950034	114	0.5699108	1.98 at 0.05 level	Not Significant
Female	68	16.63768	4.458868			2.62 at 0.01 level	



Result

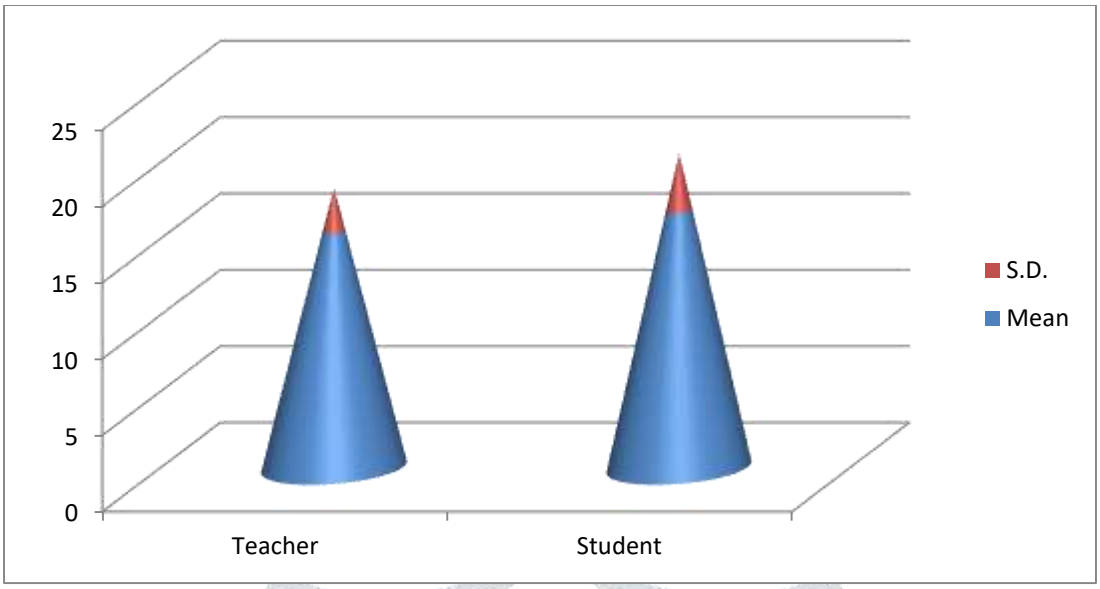
From the table it finds out that the necessary value for judging significance with a degree of freedom 114 is 1.98 at 0.05 level of not significance. Since it calculate t value that is 0.5699108 which is less than the table value. So the null hypothesis cannot reject at 0.05 level of confidence. Therefore, the hypothesis is accepted. Thought there is slight difference in the mean of two groups apparent in the above table. Yet it is not significant at any standard level of significance. So we can say that the two group namely male and female students are not differ significantly with regard to the use of ICT during teaching learning process in Secondary school of Jalpaiguri district.

H_{O4}: There is no significance relationship between uses of ICT by teachers during teaching and uses of ICT by secondary students in school of Jalpaiguri district.

Table-4 Shows the number of samples, Mean, S.D. and correlation of teacher and students.

Table-4: the result of the analysis can be founded at a glance the table given below-

Group	N	Mean	S.D.	df	Correlation	Table value	Result
Teacher	142	15.45139	2.842804	140	0.242862095	0.159 at 0.05 level	Low correlation
Student	142	16.82639	3.740405			0.208 at 0.01 level	



Result

From the table it finds out that the necessary value for judging significance with a degree of freedom 140 is 0.159 at 0.05 level of significance. Since it calculate correlation value is 0.242862095 which is lordly than the table value. So it can reject the null hypothesis at 0.05 level of confidence and also reject in 0.01 level of significance. Though there is difference in the mean of two groups apparent in the above table. Yet it is significant at any standard level of significant. So we can say that the two groups namely teacher and students are low correlation with regard to the use of ICT during teaching learning process in Secondary school of Jalpaiguri district.

- **LIMITATION OF THE STUDY:**

Some limitation are given below-

1. Only seven (7) secondary school were selected for the study.
2. Researcher biasness.
3. Due to the shortage time the study was restricted of Jalpaiguri district.
4. sample selection problem, there can't use stratified sampling technique.

- **CONCLUTION:**

Ultimately, among the 142 secondary school students taken for the study majority of the students were used of ICT tools. The necessary infrastructures for ICT were not available in most of the school in Jalpaiguri district. Among the visited secondary school of Jalpaiguri district, Urban area schools was equipped with some infrastructures for ICT but Rural schools was equipped with less infrastructures of ICT. Most of the schools in Jalpaiguri district lack in the use of ICT. We can see form this study that is the differs to use of ICT resources among urban and rural students and also male and female students. There is low correlation among teachers and students to use of ICT in teaching learning process.

ICT has revolutionized the entire concept of education, learning and research by offering new opportunities and challenges in creation dissemination of information. ICT can be used as a tool to solve different type of problems in development of students thinking or in creative activities, to support collaboration among all participants of learning process as a standard component of educational environment. One of the most commonly cited reasons for using ICTs in the schools has been to prepare the current generation of students

for a workplace where ICTs, particularly computers, the internet and related technologies are becoming more and more ubiquitous. The use of ICT specially computers and internet technologies-enable new ways of nteachingn and learning rather than simply allow teachers and students to do what they have done before in a better way.

❖ SUGGESTIONS

1. The teachers should motivate students to use ICT for the teaching- learning process by providing the fillips and constructing the policies at the institute.
2. Teacher associating workshops and seminars on 'The benefit of ICT in the teaching –learning process' should enhancement.

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