

A Comparative Assessment on ICT Accessibility among the Government and Non-Government Higher Secondary School Students at Home & Other Places

*Nirmal Kumar Guchhait**

E-mail : gnirmal@gmail.com

ABSTRACT

ICT is an acronymic form of Information and Communication Technology. Teacher Education & students' capacity can be achieved easily by using techniques, teaching aids, like ICT components. ICTs: Computers, internet, mobiles, projectors, televisions etc. Those can be called as audio-visual media and these are very important in teaching learning process. The objectives are framed to compare the ICT resources available at home among the govt. and non-govt. higher secondary school students and to compare the ICT usage at home among the govt. and non-govt. higher secondary school students and to compare the access of ICT activities related to school work at Other Places among the govt. and non-govt. higher secondary school students. There is survey method used to collect data by using self-made Questionnaires tool. There are total 250 samples are used from govt. (125) and non-govt. (125) higher sec. school students of class XI from 14 schools in Bilaspur district, Chhattisgarh. The data analyses for this study utilized Microsoft Excel & t- Test were used to find the response to the questionnaire. Findings: The researcher found that the students of non-govt. schools had a better level of the access of ICT activities at home and other places collectively than the students of govt. Schools. From the above discussion, the researcher concluded that there are less computer, internet, projector available at home in the govt. higher secondary school students' than the non-govt. higher secondary school students'. Implications: By envisaging the provision for computer education (viz. ICT) in the government schools as well as non-government schools in students' curriculum to improve quality. This paper suggested that a study can be conducted considering various aspects of Computer subject teachers e.g., training, courses etc. programmes in higher education as well school education.

Keywords: *ICT, ICT accessibility in Govt. & Non-govt. School Students, Comparative assessment, Implications, Suggestions for improving quality.*

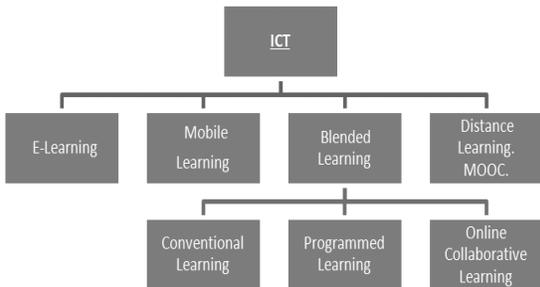
Introduction

Education itself is the basic human right and as a tool to make a sensitive about issues and problems in our lives. It is considered to

be the backbone of national ideals. Education is the most powerful instrument for changing in developing and developed countries. It provides a better quality of life for any citizen for their

* Asst. Professor, Vidyasagar Teachers' Training Institute, Debra, Paschim Medinipur (W.B)

living environment. The purpose of Education is not only to train people but also employment and training them to competent their lives for present and future...so called preparation for future life. Teacher Education & students' capacity can be achieved easily by using techniques, teaching aids, like ICT components. **ICTs: Computers, internet, mobiles, etc those are called audio-visual media and these are very important in education.** ICT is an acronymic form of Information and Communication Technology. ICT refers to forms of technologies that are used to create, store, share or transmit, exchange information (UNESCO, 2002). The overall purpose of this study was to compare the accessibility of ICT based instructions by secondary school students in govt. and non-govt. of Bilaspur district in Chhattisgarh (India). This paper suggested that a study can be conducted considering various aspects of Computer subject teachers e.g., training, courses etc programmes. The advantages of ICTs are-



- Increase retention,
- Self Pacing of Learning and Serve multiple teaching functions,
- Capture expert knowledge and Multiplicity of Languages.

Rationales

Computer Education has become a compulsory subject in Teacher Education and both teachers and students started using computers in educational process. The rapid

diffusion of Information and Communication Technologies (ICT) during the last two decades has had effective impact on all the area of human efforts. ICT are seen as having a great potential for improving the human condition by creating new economic and educational opportunities as audio-visual media in higher education. During the use of computers in education at the time of learning, it is observed that both from the context of facilities, awareness, skills, applications and evaluation the students always felt sensitive in integrating the computer education. Hence the researcher felt that to know the access of ICT of students on educational purposes, which is taken as for the study.

Reviews of Related Literature

The scope of knowledge is very vast and progressive. Before undertaking a new research we must have knowledge of the related studies. In order to achieve this, it is very important to study and analyses the previous researches. It gives an idea of how much work has been done on a problem which the research had undertaken, the methodology adopted and the findings of the previous researches. A review of related literature also reduces the chances of a repetitive study. It helps to propose an outline and provides the guidelines to carry out the study.

- This study found that majority of the students used ICT to communicate with peers more than other types of ICT application. However, the study found that students' pedagogical use of ICT was low. This analysis showed-student in public schools pedagogically uses ICT more than private schools. Total 3380 respondents, 51.5% females and 48.5% males. In addition, urban school students pedagogically use ICT more than semi-urban and rural school students. Finally,

the findings indicated that students' ICT competencies were the most predictor of their technology use.

- Duta, Martinez and Rivera (2014) conducted on 'between theory and Practice: the importance of ICT in higher Education as a tool for collaborative learning' that the importance of ICT in classroom by using virtual platforms (Blogs, Twitter, Trello, E-mail, Discussion forums). They used descriptive case method & collected data from 90 undergraduate students in each group aged between 18 and 28 years in university in Romania.
- Their findings indicated as below →
 - a. Tool for communication & interaction → 91%, 82 respondents.
 - b. Improves learning → 87.7%, 79 respondents;
 - c. Facilitates the autonomous & independent learning → 80%, 72 respondents ;
 - d. Assume different roles (taste, hobby, interest) → 75%, 68 respondents ;
 - e. Fosters knowledge of the contents of the field → 63.35, 57 respondents;
 - f. Increased motivation → 58%, 52 respondents ;
 - g. Follow-up → 46%, 41 respondents ;
 - h. Achievement of the time → 43%, 39 respondents ;
 - i. Innovation & integration → 39%, 35 respondents ;
 - j. Developing skills in finding the information → 34%, 31 respondents
 - k. Creativity → 31%, 28 respondents ;
- Other answers → here those responses that could not be integrated into any of the above categories. They proved that the use of ICT influences the students' achievement at top level.

Knowledge Gap

After reviews, the researcher got there is no detail activity (research) among the govt. And non-govt. higher secondary school students in State and CBSE secondary schools in Bilaspur district were found. So that is a knowledge gap, which is seemed to me.

Research Question (?)

After studying the related reviews on use of ICT, a question arises in researcher's mind, is there any comparison between the accesses of ICT among the govt. And non-govt. higher secondary school students' at home with reference to the State and CBSE secondary schools in Bilaspur district (Chhattisgarh)?.....

Statement of the Problem

Considering the importance of ICT in teaching learning process the present study is based on what is the condition of accessing ICT govt. & non-govt secondary school students in today's scenario. The present study focused on "**A Comparative Assessment on ICT Accessibility among the Government and Non-Government Higher Secondary School Students at Home & Other Places**".

Objectives of the Study

1. To compare the ICT resources available at home among govt. and non-govt. higher secondary school students'.
2. To compare the ICT Usages at home among the govt. and non-govt. higher secondary school students.
3. To compare the access of ICT activities related to school work at Other Places collectively among the govt. and non-govt. higher secondary school students.

Hypotheses

To test the attainability of the above objectives (2, 3) the following hypotheses are formulated.

- A. Research Hypotheses(R_H):-**
- R_H 1: There is a difference between the **ICT Usages at home** among the govt. and non-govt. higher secondary school students.
- R_H 2: There is a difference between the **access of ICT activities related to school work at Other Places collectively among** the govt. and non-govt. higher secondary school students.
- B. Null Hypotheses(H₀):-**
- H₀1: There is a no significant difference between the ICT Usages at home among the govt. and non-govt. higher secondary school students.
- H₀2: There is a no significant difference between the **access of ICT activities** related to school work at Other Places **collectively among**

the govt. and non-govt. higher secondary school students.

Research Process

According to objectives, survey method was adopted for the study.

Survey method: Survey method is used to get descriptive information about target population.

Population: All higher Secondary School Students of Class 11th (Arts, Science, & Commerce) who were learning with secondary schools those are situated in Bilaspur District.

Samples: 250 Students (125 from govt. and 125 from non-govt.) were selected for the study from 14 schools of Bilha block of Bilaspur District of Chhattisgarh state, by using simple random sampling method. Detailed of sampling provide in Appendix No.I.

APPENDIX-I

Management	School Name	Sample Size
Govt. Schools	A. Govt. HS School, Koni B. C.G HS School, Birkona C. Govt. HSSchool, Tarbahar D. Dr.B.R.Amedkar N.N School, Magarpara E. Govt. HS School, Chantidih F. Mission HS School, Brihaspati Bazar G. C.G HS School, Police Ground.	125 (Students, Class-11 th)
Non-Govt. Schools	H. Modern Educational Academy, Seepat Chak, I. Burgess EM H School, Police Line, J. Real Growth P.School, Uslapur K. St. Joseph Convent HS School, Tarbahar L. Hari Model School, Bilaspur M. Saraswati S.Mandir HS , Koni N. Mohanty E.M HS School, Bilaspur.	125 (Students, Class-11 th)
Total Schools	14	250

Variables

- a. Independent: Higher secondary schools (govt. and non govt.).
- b. Dependent: The ICT accessibility of students.

Research Tools

The instruments that are employed to gather new facts or to explore new fields are called as 'Tools'. It has vital importance to collect suitable and desired data. Different tools are suitable for selecting different types of data. Since the present study is related to the collection of information from the Students regarding the use of ICT in Learning Process in higher Secondary Schools. A 'Questionnaire' was constructed by researcher and administered to find out the desired objectives.

Also Checklist (Yes/No) type and Observation Schedule are included in the Questionnaire Tool. Microsoft Excel is used for data calculation.

Data Analysis

Here t-test is used to find out the statistical significances.

- a) **From objective 1:** The researcher got that this objective is studied under the qualitative analysis of data for each question. a) From the survey it is noticed that there are 42 students use Computer at home among 125 govt. higher secondary school students and 83 students also use Computer among the 125 non-govt. higher secondary school students in their learning process.
- b) There are 86 students having Smartphone at home among 125 govt. higher secondary school students and 113 students also use Computer among the 125 non-govt. higher secondary school students in their learning process.
- c) There are 84 students having Internet

facility at home among 125 govt. higher secondary school students and 113 students also have Internet facility among the 125 non-govt. higher secondary school students in their learning process.

- d) There are 67 students having Camcorder at home among 125 govt. higher secondary school students and 50 students also have Camcorder among the 125 non-govt. higher secondary school students in their learning process.
- e) There are 109 students have TV, DVD at home among 125 govt. higher secondary school students and 118 students also have TV, DVD among the 125 non-govt. higher secondary school students in their learning process.

From the above discussion, the Researcher concluded that there are fewer computers, C.D. Cassette, internet, projector available at home among the govt. higher secondary school students than non-govt. higher secondary school students.

From objective 2:

Table 1.1 :

t-Test : Two-sample assuming equal variances.

Description	Variable1 (Govt.)	Variable 2 (Non-govt.)
Mean	19.224	29.672
Variance	50.46554839	77.948
Observations	125	125
Pooled Variances	64.20677419	
Hypothesized Mean Difference	0	
Df	248	
t-Stat	10.30819788	
P(T<=t) One-tail	2.86408E-21	
T critical one-tail	1.651021014	
P(T<=t) two-tail	5.72817E-21	
T critical two tail	1.969575598	

Fig: t-Test.

From objective 2, researcher got that here in table no. 1.1, df 248 and the significance level 0.05, “t” calculated value is 10.308.

This is greater than “t”-table value which is 1.969.

So this indicates that our formulated Null Hypothesis (H_0) is rejected and alternate hypothesis (Research hypothesis) is accepted at df 248 and Significance level 0.05.

Hence, can draw the interpretation as- There is a significant difference between ICT usages at home among the govt. and non-govt. higher secondary school students.

From objective 3:

Table 1.2:
t-test: Two-sample assuming equal variances

<i>Description</i>	<i>TOTAL= Government</i>	<i>TOTAL= Non-govt.</i>
Mean	8.384	12.52
Variance	12.770	20.170
Observations	125	125
Pooled Variance	16.470	
Hypothesized Mean Difference	0	
Df	248	
t Stat	8.056	
P(T<=t) one-tail	1.6521E-14	
t Critical one-tail	1.651	
P(T<=t) two-tail	3.30042E-14	
t Critical two-tail	1.965	

From objective 3, researcher got that here in table no, 1.2, df 248 and the significance level 0.05, “t” calculated value is 8.056 .

This is greater than “t”-table value which is 1.965 .

So this indicates that our formulated Null Hypothesis (H_0) is rejected and alternate hypothesis (Research hypothesis, R_H 5) is accepted at df 248 and Significance level 0.05.

Hence, can draw the interpretation as- There is a significant difference between the govt. and non-govt. secondary school students with reference to the ICT Activities collectively at other places.

Findings

Findings.1: There is more ICT resources are available at home among non-govt. higher secondary school students than the higher secondary govt. school students.

Findings.2: It can be concluded that the students of non-govt. schools had a better level of ICT usages at home than the students of govt. schools.

Findings.3: In this objective research, explore that there is a significant difference between **the access of ICT activities related to school work at other places collectively among the govt. and non-govt. higher secondary school students.** For this study researcher used t-test to analyse the significance level of compare **the access of ICT activities collectively among the govt. and non-govt. secondary school students.**

It can be concluded that the students of non-govt. schools had a better level of **the access of ICT activities related to school work at other places collectively** than the students of govt. schools.

Delimitations

The study was limited to Bilha block of Bilaspur district of Chhattisgarh state in India.

The study was limited to some Rural and some Urban schools only.

The study was limited to Class-11th only.

Conclusion

From the above discussion, the Researcher concluded that there are less computer, internet; projectoretc resources are

available at home in the govt. higher secondary school students' than non-govt. higher secondary school students.

It can be concluded that the students of non-govt. schools had a better level of ICT usages at home than the students of govt. school students.

And also concluded that the students of non-govt. schools had a better level of **the access of ICT activities related to school work at other places collectively** than the students of govt. schools.

- **Needs of the Study:** ICT are seen as having a great potential for improving the human condition by creating new economic and educational opportunities, so this study is important for modern situation in the world.

Implications

- a) By envisaging the provision for computer education in the government schools as well as non- government schools in students' curriculum.
- b) To develop govt. students' competencies to solve daily problems as well as non-govt. students by using ICTs at schools, home and other places.
- c) To increase the computer literacy (CLASS project) by motivation in rural area students as well as urban area at the higher secondary level.

Suggestions for further study

Based on the findings of the study, series of recommendations were formulated. First, this study should be replicated and a similar study should be conducted using additional board in India.

Further study in Chhattisgarh is required to determine and evaluate barriers, incentives

and attitudes of students that could affect the implementation of ICT in the government and non-government higher secondary schools.

A study can be conducted at different college and university levels.

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