

## IMPACT OF ICT ON THE IMPROVEMENT OF READING HABITS AND OVERALL ACADEMIC PERFORMANCE : A COMPARATIVE STUDY OF UNDERGRADUATE STUDENTS IN A GOVERNMENT COLLEGE AND AN AIDED COLLEGE IN IDUKKI DISTRICT, KERALA

**Sijimol C.G,**

*Assistant Professor,  
Department of History,  
Kuriakose Elias College,  
Mannanam.*

**Sandhya R.S.,**

*Professor and Head,  
Department of Sociology,  
Kerala University,  
Thiruvananthapuram.*

**Roy C. Mathew,**

*Director & HOD (Rtd.),  
School of Gandhian Thought  
and Development Studies,  
Mahatma Gandhi University,  
Kottayam.*

### ABSTRACT

*This paper is an attempt to examine the impact of ICT on improving the reading habits and overall academic performance of undergraduate students studying in a Government college and an aided college in the Idukki district of Kerala. Idukki is officially adjudged as one of the backward districts of Kerala where the higher educational facilities are scant. To this effect a structured questionnaire was designed and administered among 193 undergraduate students (both males and females). The study also made an earnest attempt to compare the impact of ICT on the reading habits and overall academic performance of undergraduate students studying in the said Government and Aided College. The study clearly reveals the fact that the use of ICT by undergraduate students considerably enhanced their reading habit and academic performance.*

**Keywords:** *ICT, Reading habits, Academic performance and Undergraduate students.*

### INTRODUCTION

Information and Communication Technology (ICT) is one of the greatest innovations having versatile applications in the field of Industry, Commerce and Education. In the domain of Education especially in the area of Higher Education ICT plays a pivotal role in knowledge acquisition. As such, computer and internet have captured a big slice of time and reading has taken a back seat (Loan, 2009 & Kumara and Kumar, 2018). Researches have proven the fact that the emergence of ICT has substantially influenced the reading habits and academic performance of school and college students.

### REVIEW OF LITERATURE

The review of literature is based on the earlier studies conducted by many researchers related to the impact of ICT on students reading habits. According to the investigation of Kumara and Sampath (2021) about the impact of ICT on library users and their reading habits, the study reveals that 50.3% of males and 49.3% females reported that there is a great impact of ICT on reading habits. The availability of online books made the students and faculties to save their time in searching information and they could get the information of their interest easily.

Kumara (2019) made a survey on the impact of ICT on the reading habits of students in Amrita Vishwa Vidyapeetham, Bengaluru. Structured questionnaires were used for collecting data from 179 students. The study observed that majority of the respondents have a positive opinion about the impact of ICT on reading habits. Most of the students thought that using electronic resources was convenient and quick to read.

Kumara & Kumar (2019) conducted the study to investigate the impact of reading habits on the academic achievements of the students and faculty members in the universities of Karnataka State. Total of 2463 responses were taken from students and faculty members. According to the study the academic achievements of the respondents was greatly influenced by the reading habits.

Kumara & Sampath (2018) conducted the study on the impact of ICT on the reading habits of students of Tumkur University. The study noticed that most of the respondents are female students (64.6%) and the students have a high positive attitude toward reading books. The students prefer to read Internet sources more and their opinion that the print books are costlier than Internet sources. This study explore that that students" use of ICTs can positively impact their reading habits.

Issa et al. (2014) carried out a research on the effects of ICT on the reading habits of undergraduate students and their exposure to ICT. The result indicated that students used ICT for leisure activities than academic purposes.

Chauhan & Lal (2012) conducted a study on the impact of Information Technology on reading habits of college students and it pointed out that the new technology affect students reading behaviors at home and the reading habits changed from offline information to online information.

Loan (2011) reveals that Internet increased the time spent on reading. Shen (2006) organizes a study with the aim to know the impact of Computer technology on College students reading habits and

reveal that college students reading habit changed from Offline to Online reading.

In this context, the study has been conducted to know the impact of ICT on improving reading habits and overall academic performance of undergraduate students.

### **Objectives of the study**

- To explore the influence of ICT on the reading habits and overall academic performances of under graduate students.
- To make an objective comparison of the influence of ICT on the reading habits and overall academic performance of under graduate students studying in the Government and Aided Colleges.

### **Research problem**

As a matter of fact the emergence of ICT has substantially influenced the entire realm of human life including the reading habits and overall academic performances of students in schools and colleges. Of late all the colleges and universities in the state of Kerala are paying attention for providing the best possible ICT facilities in the schools and colleges. However there are only a few studies so far carried out for exploring to what extend the ICT facilities accorded in the schools and colleges have influenced the reading habits and overall academic performances of students. This has fascinated the researcher to make an in-depth study on the influence of ICT on the reading habits and academic performance of undergraduate students studying in both Aided and Government colleges in Kerala. The researcher trusts and hopes that the study will bring out sufficient insight on three important aspects.

1. To what extent ICT facilities are systematically provided in the chosen colleges of the study.
2. To bring out valid insights on what extent ICT facilities in the colleges have influenced the reading habits and overall academic performances of under graduate students

- The study will also make an attempt to compare the ICT facilities made available in the selected colleges.

## METHODOLOGY

A structured questionnaire was evolved and formulated in order to elicit the convictions and opinions of under graduate students studying in a Government and an Aided College in Idukki district.

### Research Design

The study is Descriptive cum Analytical in nature.

### Sample size estimation

In order to select the required samples for the study proportion test was applied. Since the population is finite the following formula (Krejcie and Morgan, 1970) was used.

$$n = \frac{z^2 pqN}{e^2(N - 1) + z^2 pq}$$

**n** = required sample size

**z<sup>2</sup>** = critical value corresponding to 95% confidence interval

**N** = population size

**P** = the proportion of respondents agreed to the view that ICT has substantially influenced the reading habits

**q** = 1-p

**e** = Margin of error 5%

The study engaged respondents from two colleges in Idukki district namely Government College, Kattappana and Newman College, Thodupuzha, an Aided college in the district. Using the above formula 193 samples were taken from these Colleges.

### Sample design

Probability sampling technique namely simple random sampling lottery method was employed to select the required sample for the detailed study.

### Analysis and Interpretations

The primary data gathered were cleansed and refined with the help of SPSS software. Accordingly the outliers in the data were expelled, missing values were imputed and unengaged responses were removed. Initially an exploratory factor analysis was done and it extracted five critical factors with strongly correlated indicator variables. These factors are:

- **NFICT** – Need for ICT in improving reading habits and academic performance
- **BUICT** – Barriers in the use of ICT
- **SUICT** – Satisfaction in the use of ICT for improving reading habit and overall academic performance
- **RIICT** – Relative improvement in reading habits and academic performance due to ICT facilities
- **EPICT** – Efficacy of the prevailing ICT facilities in the College.

An earnest attempt has been made for analyzing as to what extent ICT enables the undergraduates in the two colleges for improving their reading habits and overall academic performance including the extent of its usefulness in their daily assignments and preparation for examinations. Besides an attempt has also been made for comparing the ICT facilities and the reading habits and academic performance of the undergraduates in the two colleges.

### Hypothesis:

**Null Hypothesis: Conviction of the undergraduates regarding statements on the need for ICT in improving their reading habits and overall academic performance is equal to average level.**

**Table:** t test for specified value (Average = 3) of statements on the need for ICT in improving reading habits and overall academic performance of undergraduate students.

Statements on need for ICT in improving reading habits and overall academic performance	Mean	SD	t - value	p - value
NFICT1	4.06	0.704	20.95	< 0.001
NFICT2	4.22	0.705	24.09	< 0.001
NFICT3	3.99	0.802	17.18	< 0.001
NFICT4	4.02	0.802	17.54	< 0.001
NFICT5	4.07	0.80	18.62	< 0.001
Note ** denotes significant at 1% level				

Since p value is less than 0.01 the null hypothesis rejected at 1% level of significance with regard to all the statements with respect to the conviction of the undergraduates regarding the need for ICT in improving their reading habits and overall academic performance. Hence it can be concluded that the conviction of the undergraduates in this regard is not equal to average level. Based on mean score, their conviction on the need for ICT in improving their

reading habits and overall academic performance is much above the average level. This implies that the emergence of ICT paved the way for improving the reading habits and academic performance of undergraduates in colleges. (Basri et al., 2018)

**Hypothesis: Conviction of the undergraduates on the Relative Improvement in Reading habits and Academic performance due to ICT facilities is equal to Average level.**

**Table:** t test for specified value (Average = 3) of statements on the Relative Improvement in Reading habits and Academic performance

Statements on the Relative Improvement in Reading habits and Academic performance	Mean	SD	t - value	p - value
RIICT1	3.63	0.769	11.26	< 0.001
RIICT2	3.84	0.90	12.94	< 0.001
RIICT3	3.83	0.680	17.05	< 0.001
Note ** denotes significant at 1% level				

Since p value is less than 0.01 the null hypothesis is rejected at 1% level of significance with regard to all the statements on the conviction of the undergraduates on the relative improvement in Reading habits and Academic performance is not equal to average level. Based on mean score their conviction with regard to all the statements on the relative improvement in Reading habits and

Academic performance is much above the average level. Hence it can be concluded that the undergraduates in the studied colleges have realized the potential of ICT in increasing their reading habits.

**Null Hypothesis: Satisfaction of the undergraduates in using ICT for improving reading habits and their overall academic performance is equal to average level.**

**Table:** 't test' for specified value (Average = 3) of statements on the satisfaction of the undergraduates in the use of ICT.

Satisfaction of the undergraduates	Mean	SD	t - value	p - value
SUICT1	3.53	0.979	7.49	< 0.001
SUICT2	4.45	0.749	26.82	< 0.001
SUICT3	3.80	0.97	11.41	< 0.001
Note ** denotes significant at 1% level				

Since p value is less than 0.01 the null hypothesis is rejected at 1% level of significance with all the statements on the satisfaction level of the undergraduates in using ICT for improving reading habits and their overall academic performance. Hence the level of satisfaction of the undergraduates in the studied colleges is not equal to average. Based on mean score, their level of satisfaction in using ICT for improving their reading habits and overall academic performance is much above average level. Hence it can be concluded that the undergraduates

in the college are highly satisfied with the use of ICT for improving their reading habits and overall academic performance.

### **Hypothesis**

There is no significant difference between Male and Female undergraduates with respect to their conviction on Factors of satisfaction of the use of ICT for improving reading habits, improving overall academic performance and the Relative advantage of it in enhancing reading habits.

**Table:** 't' test for significant difference between Male and Female undergraduates with respect to Factors of satisfaction of the use of ICT and the relative advantage of using it for enhancing reading habits.

Factors of the satisfaction on the use of ICT	Gender				t value	p value
	Male		Female			
	Mean	SD	Mean	SD		
Satisfaction in the use of ICT for improving reading habits and overall academic performance	10.44	2.33	12.42	1.84	6.38	< 0.001
Conviction of the undergraduates on the Relative Improvement in Reading habits and Academic performance due to ICT facilities	11.27	1.7	11.31	1.92	1.17	0.907

Since p value is less than 0.01 the null hypothesis is rejected at 1% level of significance. Hence there is significant difference between male and female undergraduate students in their level of satisfaction in the use of ICT for improving their reading habits

and the overall academic performance (Ahmad et al., 2019). Based on mean score the female undergraduates have better satisfaction in the use of ICT for improving their habits and overall academic performance. However there is no significant

difference between male and female undergraduates in their conviction on the relative advantages of ICT for improving their reading habits and overall academic performance.

### **Hypothesis**

Null hypothesis: There is no significant difference between undergraduates studying in the Government College and an Aided College in their attitude towards the use of ICT for improving reading habits and overall academic performance.

**Table:** 't' test for significant difference between Government College and Aided College with respect to Factors that influence the use of ICT for improving reading habits and academic performance.

Factors that influence the use of ICT for improving reading habits and overall academic performance.	College				t value	p value
	Government		Aided			
	Mean	SD	Mean	SD		
Need for ICT in improving reading habits and academic performance	20.25	2.761	20.54	2.911	0.698	0.486
Barriers in the use of ICT	16.38	3.509	17.25	3.805	1.614	0.108
Satisfaction in the use of ICT for improving reading habits / academic performance	11.35	2.409	12.08	2.010	2.304	* 0.022
Relative Improvement in Reading habits and Academic performance due to ICT facilities	10.79	1.874	11.66	1.743	3.317	** < 0.001
Efficacy of the prevailing ICT facilities in the College	7.07	1.394	7.14	1.488	0.325	0.745
Overall factors	66.14	5.428	68.36	6.85	2.448	* 0.015

\* denotes significance at 5% level.

\*\* denotes significant at 1% level.

Since p value is less than 0.05, null hypothesis rejected at 5% level of significance with regard to factors of satisfaction in the use of ICT for improving the reading habits and overall academic performance and the overall factors in the use of ICT for improving the reading habits and overall academic performance. Hence there is significant difference between Government College and Aided College with regard to the use of ICT for improving the reading habits and academic performance of undergraduate students.

As p value is less than 0.01, there is a significant difference at 1% level between undergraduates in the Government / Aided Colleges in their improvement in Reading habits and academic performance on account of the availability of ICT facilities.

Based on mean score, the Aided college undergraduates have better conviction and attitudes in the use of ICT for enhancing their reading habits and improvement in their overall academic

performance than their Government College counterparts.

However there is no significant difference between undergraduate students studying in the Government College and Aided College with regard to their attitudes and convictions with respect to the factors: need for ICT in improving reading habits and

academic performance, Barriers in the use of ICT and the efficacy of ICT facilities in both types of colleges.

### **Hypothesis**

**Null Hypothesis: Level of opinion/conviction of the undergraduates on the existing ICT facilities in their colleges for improving reading habits and overall academic performance is equally distributed.**

**Table:** Chi-square test for goodness of fit of equality of level of opinion/ conviction of the Undergraduates

Level of conviction/ opinion	Frequency	Percent	Chi-square value	p value
Low	51	26.4	44.180	< 0.001
Moderate	89	46.1		
High	53	27.5		
Total	193	100.0		

Since p value is less than 0.01, the null hypothesis rejected at 1% level of significance. Hence it can be inferred that Level conviction/opinion of the undergraduates regarding the existing ICT facilities in their Colleges is not equally distributed. Based on percentage, the majority of graduates belong to moderate level (46.1%). This points to the fact that the existing ICT facilities in their respective colleges need revamping.

## **FINDINGS**

- It was found that the introduction of ICT facilities in the colleges have substantially helped their undergraduates for improving their reading habits and overall academic performance
- The undergraduates in the colleges have considerably realized the relative improvement in their reading habits and academic performance in comparison with the conservative method of referring books, periodicals and the like.
- Undergraduates in the colleges in Kerala are highly satisfied with the use of ICT for increasing their reading habits and academic performance.

- It was found that female undergraduates have heightened satisfaction in comparison with their male counterparts in the use of ICT for improving reading habits and academic performance. However there is no significant difference could be seen between male and female in their conviction on the relative advantage of ICT for improving reading habits and overall academic performance.
- With regard to the level of opinion of the undergraduates in the college regarding the adequacy of the ICT facilities in their colleges it was found that the existing facilities in their colleges are not equally distributed. Based on percentage, the majority of the graduates belong to moderate level (46.1%). This implies that the existing ICT facilities in their college need revamping.

## **CONCLUSION**

Introduction of ICT in colleges is a boon for the undergraduate students and enabling them to boost their reading habits and for improving their overall academic performance. However the study reveals

the fact that the ICT facilities in the Colleges in Kerala are not impeccable. This means these facilities currently prevailing in the Colleges in Kerala need revamping. Therefore the College authorities concerned must pay unflinching attention to provide the latest and updated version of the computers besides ensuring continuous electricity supply with UPS connections and sound Internet bandwidth facility. The study also revealed the fact that ICT facilities have substantially influenced the reading habits and overall academic performance of undergraduate students in Kerala.

## REFERENCE

1. Shen, L. B. (2006). Computer technology and college students' reading habits. *Chianan annual bulletin*, 32, 559-572.
2. Loan, F. A. (2009). Impact of new technology on reading habits: A glimpse on the world literature.
3. Loan, F. A. (2011). Impact of Internet on reading habits of the net generation college students. *International Journal of Digital Library Services*, 1(2), 43-48.
4. Issa, A. O., Amusan, B. B., Adeniran, C. O., & Bolarinwa, L. (2014). Perception of University Undergraduate Students on the Effects of Exposure to ICT on their Reading Habits: The Kwara State Experience. *International Journal of Digital Library Services*, 4(3), 20-36.
5. Kumara, B., & Kumar, B. S. (2018). Impact of ICT on reading habits of students: A survey. *Asian Journal of Information Science and Technology*, 8(1), 75-79.
6. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
7. Mlay, S., Sabi, H., Tsuma, C., & Langmia, K. (2015). Uncovering reading habits of university students in Uganda: Does ICT matter? *International Journal of Education and Development using ICT*, 11(2).
8. Kumara, B., & Kumar, B. S. (2021). Library users and their Reading habits: Assessing the Impact of ICT. *Library Philosophy and Practice*, 5670.
9. Hymavathi, B., & Babu, K. S. (2018). Impact of Information and Communication Technology (ICT) on reading habits of postgraduate students in universities located in Chittoor district: a study. *International Journal of Library and Information Studies*, 8(2), 235-246.
10. Kumara, P. (2019). Evaluation of ICT impact on reading habits of students in Amrita Vishwa Vidyapeetham Bengaluru. Evaluation.
11. Kumara, B., & Kumar, B. (2019). Impact of reading habits on the academic achievements: A survey. *Library Philosophy and Practice (e-journal)*, 2269.
12. Ahmad, S., Dar, B. A., & Lone, J. A. (2019). Reading Habits and Attitudes of Undergraduate Students: A gender based comparative study of Government Degree College (Boys) and Government Degree College for Women, Anantnag (J & K). *Library Philosophy and Practice*, 2019, 1-13.