



# EMPOWERING UNDERGRADUATES: ICT'S ROLE IN ACADEMIC ACHIEVEMENT IN BHADRAK DISTRICT

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## **Abstract-**

In this study attempt has been made by the investigator to examine the correlation between the use of ICT and academic achievement of undergraduate students of Bhadrak District. Descriptive survey method is used in the present study. Participants were 100 (50 males and 50 females) undergraduate students of Bhadrak Autonomous college and Bhadrak Women's College of Bhadrak District. They were selected by using stratified random sampling. For collection of data the investigator used self-made ICT usage scale, collected data were analysed by using statistical technique like Pearsons co-efficient of correlation and independent t-test and tested at 0.01 and 0.05 level of significance. The result shows that there is a positive relationship between use of ICT and academic achievement of undergraduate students of Bhadrak District. The finding also shows that there is no relationship between Bhadrak District undergraduate male and female students and use of the ICT. The conclusion of the study is that use of ICT greatly influences students' performance in the academic field.

## **Keywords:**

Undergraduates, Use of ICT and Academic Achievement

## **I. INTRODUCTION**

India is one of the largest democratic countries of the world. The existence of democracy widely demands upon education of its member. In literal sense the education which believes after higher secondary education is called higher education (under graduate level). It occupies important position in producing quality intellectuals and bringing maximum utilization of human resources. In the age of globalisation knowledge is the power, economy and strength of the individual and an asset of the society. So, every man should consume different kinds of knowledge and try to transfer that knowledge for social change and advancement of human thoughts and attitude. Today, Indian higher education has entered an era of transition due to use and demand of technologies in the teaching learning process. Now higher educational institutions are transforming their traditional approaches to new technology-integrated pedagogical approaches. Through innovative digital platforms and online learning resources like INFLIBNET, SWAYAM, SWAYAM PRABHA, NMEICT, NDL etc. students from diverse back ground can access

educational opportunities. Some of the innovative technology like virtual classroom and interactive simulations enhance the quality of education and helps the learners to learn according to their own rate.

## II. THEORITICAL FRAMEWORK

### Meaning of ICT:

It means a variety of technological application in the process and communication of information. It is a combination of three words i.e. 'information', 'communication' and 'technology'. Information means knowledge, communication means communicate and technology means the use of computer. It is a technological tool and resources used to collect, create, store, manipulate, use, transmit, disseminate and manage information. For example-internet, computer, E-mail, mobile etc. According to UNESCO "ICT is a form of technology that are used to transmit, process, store, create, display, share or exchange of information by electronic means".

### ICT Integration in Teaching:

ICT has great significance in education system. It greatly helps in capacity development of both teacher and students. Hence all education curricula should be incorporated with appropriate digital technology to meet the present and future challenges of globalization and knowledge economy (Adelakun,2022). ICT can enhance teaching opportunities and outcomes for students with intellectual disabilities (Anderson,2009). Students who integrate ICT in learning may easily understand complex topics and concepts. That greatly helps the learner to recall information and use it to solve problems in the class room (Apple computer,2002). Integration of ICT in teaching enhances students' knowledge, develops inquiry skill and creates curiosity and interest as information is available at multiple levels (CEO Forum of Education and Technology,2001).

### Undergraduate Level:

Undergraduate level is the first level of higher education. Where there is a provision of general, technical and professional education. A student pursues this course to earn a Bachelor Degree.

### Academic Achievement:

The term academic is used to describe things that relate to the work done in schools, colleges and universities, especially work which involves studying and reasoning rather than practical or technical skills. Achievement denotes accomplishment or attainment. Therefore, a person's achievement represents the degree to which he or she has learned a skill or knowledge from the instruction given to him. Academic performance refers to the learner's ability to show and apply knowledge, skill, abilities and attitudes learnt towards a specific objective (Kiruhi, Githua & Mboroki,2009).

### Objectives of the study:

1. To study the co-relation between use of ICT and academic achievement of undergraduate students of Bhadrak District.
2. To study the co-relation between use of ICT and academic achievement of male under graduate students of Bhadrak district.
3. To study the co-relation between use of ICT and academic achievement of female Under Graduate students of Bhadrak District.
4. To study the significance difference between male and female students using ICT at Under Graduate level.

**Hypothesis of the study:**

1. There exists positive relationship between use of ICT and academic achievement of Under Graduate students of Bhadrak District.
2. There exists positive relationship between use of ICT and academic achievement of male Under Graduate students of Bhadrak District.
3. There exists positive relationship between use of ICT and academic achievement of female Under Graduate students of Bhadrak District.
4. There is no significance difference between male and female students using ICT at Undergraduate level.

**III. METHODOLOGY****Design of the study:**

In this present study, the investigator has used descriptive survey method to study the ICT integration on Under graduate academic achievement.

**Population and Sample:**

The population of the present study constituted all Under graduate students of Bhadrak District. Among them 100 undergraduates were selected by using stratified random sampling technique from Bhadrak Autonomous college and Bhadrak Women's college. 50 students from each institution were collected including both male and female students that truly represents the total population.

**Sources of data collection:**

In this study self-made scale were used by the investigator for the collection of data. Self-made scale consisting 20 items for the collection of data from the respondent and 4<sup>th</sup> semester examination mark of the students of Bhadrak Autonomous college and Bhadrak Women's college to find out the correlation ship between ICT usage and academic achievement.

**Statistical tools:**

In this study investigator used Pearson product moment co-relation to find out the relationship between ICT usage and academic achievement and independent sample t- test is used to determine significance.

**IV. ANALYSIS AND INTERPRETATION OF DATA****Analysis of objectives-1**

Analysis of the Relationship between use of ICT and Academic Achievement of students

Table-1

Variable	N	Pearson's Correlation	df	Level of significance at 0.01
Use of ICT	100	.96	98	Significant
Academic Achievement	100			

The Table-1 shows the relationship between use of ICT and Academic Achievement of the Undergraduate students. The total number of samples taken in the study was 100. After find out raw

scores of both of these variables the investigator then tried to set up a relationship in between two variables by employing Pearson's coefficient of correlation. It is indicating that there exists a very high positive relation (.96r) in between use of ICT and academic achievement of the undergraduate students at Bhadrak Autonomous College, Bhadrak. Thus, the previous framed hypothesis that states there exist positive relationship between use of ICT and Academic Achievement of undergraduate students is not rejected as the calculated Pearson's correlation is greater than the df value in 0.01 level of significance.

### Analysis of Objectives 2

Analysis of the Relationship of use of ICT and Academic Achievement of male students.

Table -2

Variable	N	Pearson's Correlation	df	Level of significance at 0.01
Use of ICT	50	.96	48	Significant
Academic Achievement	50			

The above table shows the relationship between use of ICT and Academic Achievement of the male students at Undergraduate level. The total number of samples taken in the study 100 out of which 50 were male students. After finding out the raw score of both these variables of the selected sample the investigators tried to set up a relationship in between the two variables by employing Pearson's coefficient of correlation. It is indicating that there exists a very high positive relationship(.96r) in between the use of ICT and Academic Achievement of male undergraduate students. Thus, previously framed hypothesis states that there exists positive relationship between use of ICT and Academic Achievement of male undergraduate students studying at Bhadrak Autonomous college not rejected as the calculated Pearson's correlation is greater than the df value in 0.01 level of significance.

### Analysis of Objectives-3

Analysis the relationship between use of ICT and Academic Achievement of female students.

Table-3

Variable	N	Pearson's Correlation	df	Level of significance at 0.01
Use of ICT	50	.98	48	Significant
Academic Achievement	50			

The table-3 shows the relationship between use of ICT and Academic Achievement of the female students studying at Bhadrak Autonomous College, Bhadrak. The total number of samples taken in the study 100 out of which 50 were female students. After finding out the raw score of both these variables of the selected sample the investigator then set up a relationship in between the two variables by employing Pearson's coefficient of correlation. It is indicating that there exists a very high positive relationship(.98r) in between use of ICT and Academic Achievement of female students studying at Bhadrak Autonomous College, Bhadrak. Thus, the previously framed hypothesis states that there exists positive relationship between use of ICT and Academic Achievement of female students

studying at undergraduate level is not rejected as the calculated Pearsons correlation is greater than the df value in 0.01 level of significance.

#### Analysis of Objectives-4

Analysis of the significance difference between male and female students with respect to their use of ICT

Table-4

Variable	N	Mean	S. D	T	DF	Remarks
Male	50	75.2	12.14	1.27	98	Not significant (at 0.01 and 0.05 level)
Female	50	72.2	11.36			

The table-4 shows that the mean of male students 75.2 and S.D 12.14 and mean of female students 72.2 and S.D 11.36. Here computed t-value 1.27 hence it is not significant at 0.01 and 0.05 levels. Here formulated hypothesis cannot be rejected. There exists no significant difference between male and female undergraduate students use of ICT.

#### V. DISCUSSION

From the above study it was found that there exists positive relationship between use of ICT and academic achievement of undergraduate students. The students who use ICT in study purpose had a positive impact on academic achievement of learner. Similarly, there exist positive relationship between use of ICT and academic achievement of both male and female students but use of ICT does not depend on gender (Male and female).

#### VI. CONCLUSION

Information and Communication Technology (ICT) helps to bridge gaps in access to education, allowing students from diverse backgrounds to access quality learning materials and opportunities. Technology facilities helps leaners to clarify their doubts and learn according to their own rate. ICT seems to have a profound impact on the process of learning at higher education level by offering new possibilities to the learners and teachers. These possibilities can have an impact on students' performance and academic achievement. Overall, the study is a focus on academic achievement of Bhadrak district undergraduates. Further research needed to validate and expand the present findings of this study.

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