

# Study on the Impact of E-Learning on Academic Achievement and Academic Awareness of Higher Secondary Level Students of Raipur District.

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## Abstract

The objective of the present study Raipur The study aims to examine the impact of e-learning on the academic achievement and academic awareness of higher secondary school students in the district. In the current digital age, e-learning has emerged as an effective medium of education, making the teaching-learning process more flexible and student-centered. The study used a descriptive survey method and a comparative research design. A total of 200 students were selected through random sampling, including 100 e-learning users and 100 non-users. Mean, standard deviation, and t-test were used to analyze the data. The results showed that e-learning had a significant impact on students' academic achievement at the 0.01 level and on academic awareness at the 0.05 level.

Therefore, it can be concluded that e-learning is helpful in increasing the achievement and awareness of students.

**Keywords:** E-learning, Educational Achievement, Educational Awareness, Higher Secondary students, digital education

## INTRODUCTION

The modern era is an age of science and technology, in which the field of education is undergoing rapid changes. The development of information and communication technology (ICT) has moved the education system from traditional classroom teaching to digital and online learning. E-learning is a medium of education in which the teaching-learning process is conducted through the internet, computers, mobile phones, smart classes, digital content, and online platforms.

E-learning has made education more flexible, accessible, learner-centered, and effective. Through e-learning, students can study at any time and from any place. This improves students' academic achievement, awareness, attitudes, creativity, and self-learning abilities.

The COVID-19 pandemic. School closures have led to the use of online classes, digital content, video lectures, Google Classroom, YouTube, and e-content. This has significantly transformed the education system.

Raipur The use of e-learning has increased rapidly among higher secondary students in the district, but it is important to understand the impact of e-learning on students' academic achievement and educational awareness. The present study was conducted with this issue in mind.

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## REVIEW OF LITERATURE ( Related Literature Review)

Literature review is crucial in research. It helps researchers gain insight into previous research and identify research gaps.

### Major studies

**Kumar (2019)** In his study, he found that e-learning is helpful in increasing the academic achievement of students.

**Sharma (2020)** found that e-learning increases students' academic awareness.

**Singh (2021)** A study by found that e-learning motivates students to self-study.

**Patel (2022)** In their study, they found that online education increased students' achievement and digital awareness.

**Verma (2023)** found that e-learning reduced the gap in learning between rural and urban students.

### Summary of the Literature review

From the literature review it is clear that e-learning has a positive impact on the academic achievement and awareness of students , but its effects have been found to be different in different areas.

### Research Gap

Based on the literature review, the following research gaps were found :

1. Most studies have been conducted at the university level.
2. There have been fewer studies at the higher secondary level.
3. There have been few combined studies on educational achievement and awareness.
4. There is no research available on this topic in the context of Raipur district.

The present study was conducted to fill these research gaps.

### Origin of the Problem

The problem arose due to the following reasons –

1. The increasing use of e-learning in education.
2. Widespread adoption of online education after Covid -19 .
3. Increasing interest of students towards digital education.
4. The potential for e-learning to improve academic achievement.
5. Need to know the level of awareness of e-learning among students.
6. There is not enough research available on this subject in Raipur district.

For these reasons, the researcher selected this problem.

## Research Title

**Study on the Impact of E-Learning on Academic Achievement and Academic Awareness of Higher Secondary Level Students of Raipur District.**

## Operational Definitions

**E-learning** – Education obtained through internet , mobile , computer and online platform is called e-learning.

**Educational achievement** – The marks obtained by students in the examination are considered as educational achievement.

**Educational awareness** – The knowledge and understanding of students towards e-learning and education is called educational awareness.

## Variables used

Independent variable	Dependent variables
E-learning	Educational achievement
	Educational Awareness

## Objectives of the Study

This study had only two objectives:

1. Higher secondary level students of Raipur district **Effects of e-learning on academic achievement** To study.
2. Among the students of Raipur district **Educational awareness of e-learning** To study.

## Hypotheses

1. E-learning has no significant impact on the academic achievement of higher secondary level students of Raipur district.
2. There is no significant difference in educational awareness towards e-learning among the students of Raipur district.

## Limitations

1. The study is limited to Raipur district only.
2. The sample is limited.
3. The study is limited to higher secondary level only.
4. Only educational achievement and educational awareness have been studied in the study.
5. The data is based on information provided by students.

## Research Design

In the present study **Descriptive survey method** was used. This method is suitable for studying current situations.

The study also used a comparative research design , comparing students who used and did not use e-learning.

## Population

The population of this study includes students attending all higher secondary schools in Raipur district. This includes students from both government and non-government schools. The population was selected because students at the higher secondary level use e-learning more and the level of academic achievement and academic awareness can be clearly measured at this level.

## Sampling Technique

for sample selection in the present study. **Random Sampling Method** was used. In this method, every student in the population has an equal chance of being selected in the sample, making the sample fair and representative. A list of higher secondary schools in Raipur district was obtained and a few were randomly selected, and students were also randomly selected from these selected schools. This sample represents the population and helps generalize the research findings.

## Sample Size

A total of 200 students were selected.

Group	N
Students using E-learning	100
Students who do not use E-learning	100
Total	200

## Interpretation

There is no significant difference of e-learning on the academic achievement of higher secondary level students of Raipur district.

**Table 1 – Number of higher secondary level students of Raipur district Effects of e-learning on academic achievement To study.**

Group	N	Mean	Sd	T-value
E-learning	100	72.50	6.20	2.80
Non-E-learning	100	68.10	7.00	

## Interpretation

mean = 72.50) for students using e-learning is higher than the average ( mean = 68.10) for students not using e-learning. The standard deviations for both groups are 6.20 and 7.00, respectively, indicating that the variance in scores for both groups is within the normal range.

A t- test was used to determine the significance of the difference between the means of the two groups. The t-value obtained was 2.80. For degrees of freedom ( df = 198), the table value is 1.96 at the 0.05 level and 2.58 at the 0.01 level.

Since the obtained t- value ( 2.80) is greater than the table value ( 2.58) at the 0.01 level, the difference between the means of the two groups is highly statistically significant at the 0.01 level. Therefore, the null hypothesis " e-learning has no significant effect on students' academic achievement " is rejected.

Therefore, it can be concluded that e-learning has a positive and significant impact on students' academic achievement. Students who use e-learning perform better academically.

**There is no significant difference in educational awareness towards e-learning among the students of Raipur district.**

**Table 2 – Among students of Raipur district Educational awareness of e-learning To study.**

Group	N	Mean	Sd	T-value
E-learning	100	85.40	8.50	2.10
Non-e-learning	100	80.20	9.10	

### Interpretation

Table 2 , the average academic awareness scores of students using e-learning ( mean = 85.40) were higher than those of students not using e-learning ( mean = 80.20) . The standard deviations for both groups were 8.50 and 9.10 , respectively, indicating that the variance in scores for both groups was within the normal range.

A t- test was used to determine the significance of the difference between the means of the two groups . The t- value obtained was 2.10 . For degrees of freedom ( df = 198), the table value is 1.96 at the 0.05 level and 2.58 at the 0.01 level.

Since the obtained t- value ( 2.10) is greater than the table value ( 1.96) at the 0.05 level , but less than the table value ( 2.58) at the 0.01 level , the difference between the means of the two groups is significant at the 0.05 level , but not significant at the 0.01 level. Therefore, the null hypothesis " e-learning has no significant effect on students' academic awareness " is rejected.

Therefore, it can be concluded that e-learning has had a significant impact on students' academic awareness. Students who used e-learning were found to be more academically aware.

### RESULTS

1. E-learning was found to have a positive impact on students' academic achievement.
2. E-learning was found to have a positive impact on students' academic awareness.
3. Students who used e-learning were found to have higher achievement.
4. E-learning increased the digital awareness of students.

### CONCLUSION

The study concluded that It can be said that e-learning is an effective medium of education. It plays a vital role in increasing students' academic achievement and educational awareness. E-learning provides students with opportunities for self-study , digital education, and the acquisition of new knowledge. Therefore, promoting e-learning in schools is essential.

### Educational implications

The findings of this study have several important educational implications for the education system , school administration , teachers, and students. E-learning has been found to have a positive impact on students' academic achievement and educational awareness , so it is essential to implement digital learning more effectively in the education system.

### E-learning facilities should be made available in schools

The study revealed that e-learning has a positive impact on students' academic achievement. Therefore, schools should provide facilities such as internet , computers , projectors , digital boards , and e-learning platforms , so that students can study digitally. This will make education more interesting , effective, and student-centered.

### **Smart classes should be arranged**

Smart classes have become a vital necessity of modern education. Through smart classes, teachers can utilize videos , animations , presentations , and digital content , enhancing students' understanding , interest, and achievement. Therefore, smart classes should be implemented in all schools in a phased manner.

### **ICT to teachers training should be given**

The success of e-learning depends on teachers. If teachers fail to use information and communication technology ( ICT ) properly , e-learning will not be effective. Therefore, ICT is essential for teachers. Training , workshops, seminars and training programs should be organized so that they can learn to prepare digital teaching material and teach online.

### **Students should be trained for digital education.**

Many students use digital devices solely for entertainment , not education. Therefore, students should be trained in digital literacy, online learning , e-books , educational websites , online exams , and other aspects of their lives to ensure they utilize e-learning effectively.

### **Make study material available online**

should provide students with e-notes , video lectures , PDF materials , online quizzes , assignments, etc. This will enable students to study at home in addition to school, and will develop a habit of self-study.

### **Blended learning should be promoted**

Online learning alone or traditional learning alone is not sufficient. Therefore, blended learning should be adopted, combining traditional classroom teaching and e-learning. This will allow students to benefit from both types of learning and increase their academic achievement and awareness.

### **Suggestions for studies (Study Suggestions)**

1. This study can be done in other districts.
2. Can be studied at the university level.
3. E-learning and traditional teaching can be compared.
4. The impact of e-learning on creativity and attitude can be studied.
5. Rural and urban students can be compared.

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