

A Study on Effectiveness of E-Learning Platforms Among College Students

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ABSTRACT

The rapid growth of digital technology has significantly transformed the education sector, leading to the increased adoption of e-learning platforms. This study aims to assess the level of awareness and examine the extent of usage of various e-learning platforms among college students. Primary data were collected from 154 respondents through a structured questionnaire. The study employs percentage analysis, chi-square test, and ranking methods for data analysis. The findings indicate that while a majority of students are aware of e-learning platforms, the level of usage varies based on factors such as accessibility, content quality, and convenience.

KEYWORDS

E-learning, Awareness, Usage, Digital Learning, Online Education, College Students, Accessibility, Content Quality, Convenience, Skill Development

INTRODUCTION

The education sector has undergone a significant transformation with the rapid growth of digital technology and widespread internet accessibility. Traditional classroom learning is increasingly being supplemented—and in some cases replaced by digital learning methods. E-learning platforms have emerged as a vital component of modern education, offering innovative ways to deliver knowledge and skills. These platforms provide flexibility, allowing students to learn at their own pace and convenience, which has made them especially popular among college students.

Various e-learning platforms such as Coursera, Udemy, and Google Classroom offer a wide range of courses across disciplines. They enable students to access high-quality educational content anytime and anywhere, breaking geographical and time barriers. Additionally, features like certifications, interactive content, and self-paced learning have increased their attractiveness. As a result, these platforms have become essential tools for academic support, skill development, and career advancement.

However, the effectiveness of e-learning platforms largely depends on the level of awareness and the extent to which students actively use them. While many students may be aware of these platforms, their actual engagement can vary due to factors such as accessibility, motivation, technological skills, and personal preferences. Therefore, it becomes important to study both awareness and usage patterns to understand how effectively these platforms are being utilized by college students.

NEED OF THE STUDY

In today's digital era, e-learning platforms have become an important part of education, especially for college students, yet a gap still exists between awareness and actual usage. While many students are aware of platforms like Coursera, Udemy, and Google Classroom, not all utilize them effectively due to factors such as limited accessibility, lack of motivation, and preference for traditional learning methods. Therefore, this study is necessary to understand the level of awareness and extent of usage among students, identify the key factors influencing their engagement, and provide insights to improve the adoption and effectiveness of e-learning platforms for better academic and skill development outcomes.

OBJECTIVES OF THE STUDY

- To assess the level of awareness among college students about various e-learning platforms.
- To examine the extent of usage of e-learning platforms among college students.

REVIEW OF LITERATURE

Ritanjali Panigrahi, Praveen Ranjan Srivastava & Prabin Kumar Panigrahi (2024) found that student engagement plays a major role in improving perceived learning effectiveness, while system quality and information quality significantly influence satisfaction. Internet self-efficacy also enhances students' confidence in using e-learning platforms.

Mamta Nitin Pillai et al. (2024) concluded that motivation and self-directed learning ability strongly affect academic performance, while students with better computer knowledge adapt more easily. Poor preparation and weak internet connectivity reduce the effectiveness of online learning.

RESEARCH METHODOLOGY

The study adopts a descriptive research design to examine the level of awareness and usage of e-learning platforms among college students and their impact on learning outcomes. Primary data were collected through a structured questionnaire from 155 college students using convenience sampling method. The collected data were classified and analyzed using statistical tools such as percentage analysis to measure awareness levels, chi-square test to identify relationships between awareness and usage, and ranking methods to determine the key factors influencing the usage of e-learning platforms.

DATA ANALYSIS AND INTERPRETATION

1. CHI-SQUARE ANALYSIS:

The chi-square test was applied to determine the relationship between awareness and usage of e-learning platforms among college students. The results indicate that the calculated value is greater than the table value, leading to the rejection of the null hypothesis. This shows that there is a significant relationship between awareness and usage of e-learning platforms, and factors such as ease of access, content quality, convenience, and cost-effectiveness influence the usage among students.

TABLE NO.1.1

CHI-SQUARE VALUE FOR PERSONAL FACTORS AND MAIN REASON FOR USAGE

Hypothesis 1

H₀ (Null Hypothesis): There is no significant relationship between personal factors of the respondents and main reason for usage.

H₁ (Alternative Hypothesis): There is a significant relationship between personal factors of the respondents and main reason for usage.

S.NO	PERSONAL FACTORS	CHI-SQUARE VALUE	P VALUE	S/NS
1	Age	20.208	0.211	NS
2	Gender	3.694	0.449	NS
3	Current level of Study	12.864	0.045	S
4	Year of Study	14.732	0.032	S
5	Type of Institution	9.541	0.148	NS
6	Location	10.286	0.112	NS
7	Mode of Living	13.917	0.038	S

Source: Primary data

(S – Significant, NS – Not Significant at 5% level)

INTERPRETATION

The Chi-Square analysis indicates that current level of study ($p = 0.045$), year of study ($p = 0.032$), and mode of living ($p = 0.038$) have a significant association with the main reason for using e-learning platforms, since their p-values are less than 0.05. Therefore, the null hypothesis is rejected for these variables. However, age ($p = 0.211$), gender ($p = 0.449$), type of institution ($p = 0.148$), and location ($p = 0.112$) have p-values greater than 0.05. Hence, the null hypothesis is accepted for these variables, indicating that these personal factors do not have a significant association with the main reason for using e-learning platforms.

TABLE NO.1.2

CHI-SQUARE VALUE FOR PERSONAL FACTORS AND SOURCE OF AWARENESS

Hypothesis 1

H₀ (Null Hypothesis): There is no significant relationship between personal factors of the respondents and source of awareness.

H₁ (Alternative Hypothesis): There is a significant relationship between personal factors of the respondents and source of awareness.

S.NO	PERSONAL FACTORS	CHI-SQUARE VALUE	P VALUE	S/NS
1	Age	18.214	0.142	NS
2	Gender	6.328	0.097	NS
3	Current level of Study	21.874	0.018	S
4	Year of Study	19.402	0.032	S
5	Type of Institution	14.573	0.201	NS
6	Location	17.665	0.073	NS
7	Mode of Living	23.118	0.015	S

Source: Primary data

(S – Significant, NS – Not Significant at 5% level)

INTERPRETATION

The Chi-Square analysis indicates that current level of study ($p = 0.018$), year of study ($p = 0.032$), and mode of living ($p = 0.015$) have a significant association with the source of awareness of e-learning platforms, since their p-values are less than 0.05. Therefore, the null hypothesis is rejected for these variables. However, age ($p = 0.142$), gender ($p = 0.097$), type of institution ($p = 0.201$), and location ($p = 0.073$) have p-values greater than 0.05. Hence, the null hypothesis is accepted for these variables, indicating that these personal factors do not have a significant association with the source of awareness of e-learning platforms.

RESULTS AND DISCUSSION

The findings of the study reveal that a majority of college students are aware of various e-learning platforms such as Coursera, Udemy, and Google Classroom, indicating a high level of digital exposure. However, the extent of usage differs among students, with only a moderate proportion actively using these platforms for learning purposes. The chi-square analysis shows that there is a significant relationship between awareness and usage, implying that students who are more aware of e-learning platforms are more likely to use them. The ranking analysis highlights that ease of access, quality of content, and cost-effectiveness are the most influential factors driving usage, while lack of motivation and limited guidance act as barriers. Overall, the study suggests that although awareness is relatively high, improving accessibility, engagement, and institutional support can enhance the effective utilization of e-learning platforms among college students.

SUGGESTIONS

- Conduct awareness programs to educate students about e-learning platforms and their benefits. These programs should include workshops, seminars, and demonstrations. They help students understand how to effectively use digital learning tools.
- Offer more courses with recognized certifications to attract students. Certifications should be aligned with industry standards and job requirements. This increases the credibility and value of the courses.
- Actively use e-learning platforms to enhance knowledge and skills. Students should explore various courses beyond their syllabus. Regular usage improves both learning consistency and confidence.

CONCLUSION

The study highlights the increasing importance of e-learning platforms in the modern education system and examines the level of awareness and usage among college students. The findings indicate that while a majority of students are aware of e-learning platforms, their actual usage varies due to factors such as accessibility, content quality, convenience, and cost. The statistical analysis confirms a significant relationship between awareness and usage, showing that higher awareness leads to greater adoption. The ranking results further reveal that ease of access and quality of content are the most influential factors, followed by cost-effectiveness and availability of certificates.

However, certain challenges such as lack of motivation, limited technical skills, and poor internet connectivity continue to affect the effective use of these platforms. To overcome these issues, educational institutions should promote digital learning through training programs and curriculum integration, while platform providers should focus on improving usability and affordability. In conclusion, e-learning platforms have great potential to enhance academic learning and skill development, and with proper support and awareness, students can make better use of these digital resources for their future growth.

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