

Social Media as A Learning Tool: Exploring Its Role in Collaborative Learning for College Students

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Abstract—This study examines the role of social media as a learning tool to enhance collaborative learning among college students in the Erode district. With the proliferation of platforms such as Facebook, WhatsApp, and YouTube, students increasingly engage in peer-to-peer interactions that facilitate knowledge sharing and academic support. A structured survey was conducted with 100 college students using convenient sampling. Data were analyzed using simple percentage and chi-square tests to reveal the relationship between social media engagement and collaborative learning outcomes. Results indicate a significant association between active participation on social platforms and enhanced engagement, knowledge exchange, and assignment completion. The study highlights both the potential and limitations of integrating social media into formal and informal educational practices.

Index Terms—Social Media, Collaborative Learning, College Students, Higher Education, Peer Interaction

I. INTRODUCTION

Social media has evolved beyond social networking to become a prominent educational tool in higher education. It enables students to interact, share resources, discuss academic topics, and collaborate outside traditional classroom environments. The collaborative learning framework emphasizes social interaction as a key driver of knowledge construction, echoing constructivist theories that learning is rooted in social engagement. Platforms like Facebook, WhatsApp, and YouTube provide spaces for discussion, feedback, and content sharing, thus transforming the learning experience for college students.

II. STATEMENT OF THE PROBLEM

Despite the widespread use of social media among college students, there remains limited empirical

evidence on how these platforms contribute to collaborative learning, particularly in the context of the Erode district. There is a need to understand whether social media acts merely as a social distraction or effectively enhances academic collaboration and learning outcomes. This study seeks to address this gap.

III. REVIEW OF LITERATURE

Previous studies have shown that social media can enhance collaborative learning by facilitating communication, peer support, and knowledge exchange. Online social media has been found to increase student engagement and interaction with peers and teachers, positively influencing academic performance.

Lin (2025) reported that platforms like Facebook and WhatsApp are integral to collaborative learning in online education, although challenges such as information overload and privacy concerns persist. Jehss Janah et al. (2024) found that social media usage correlates with increased knowledge sharing and engagement, leading to improved academic outcomes. However, some literature highlights potential drawbacks such as distractions and reduced focus, indicating the dual-edged nature of social media as an educational tool.

IV. OBJECTIVES OF THE STUDY

1. To explore the patterns of social media use among college students in the Erode district.
2. To assess the extent to which social media supports collaborative learning.
3. To analyze the relationship between social media engagement and academic performance.

- To identify the challenges and limitations faced by students when using social media for learning.

V. HYPOTHESIS

H₁: There is a positive relationship between social media engagement and collaborative learning among college students.

H₂: Students who use social media for academic purposes demonstrate higher collaborative learning scores than those who do not.

VI. METHODOLOGY

i. Sample Size

The study was conducted with a sample of 100 college students from various institutions in the Erode district.

ii. Study Area

The research was carried out in the Erode district, Tamil Nadu, with participants drawn from multiple colleges to ensure diversity in academic background.

iii. Sampling Technique

A convenient sampling technique was employed to select participants who were readily available and willing to participate in the study. This method permitted efficient data collection from students frequently using social media in academic contexts.

iv. Tools of Analysis

- Simple Percentage: Used to illustrate distribution patterns of responses across categories through five-point tables.
- Chi-Square Test: Applied to examine the association between categorical variables such as social media use and collaborative learning outcome, presented through five-cell contingency tables.

VII. LIMITATIONS OF THE STUDY

- The use of convenient sampling may limit the generalizability of the findings.
- Self-reported data may be subject to response bias.
- The study focuses only on students within the Erode district and may not reflect national trends.

VIII. ANALYSIS OF DATA

A. Simple Percentage Analysis

Table 1: Gender of the Respondents

Gender	Number of Students	Percentage (%)
Male	48	48
Female	52	52
Total	100	100

The table shows that 52% of the respondents are female and 48% are male, indicating a nearly equal gender distribution among the respondents.

Table 2: Daily Time Spent on Social Media

Time Spent	Number of Students	Percentage (%)
Less than 1 hour	18	18
1–2 hours	32	32
2–3 hours	28	28
More than 3 hours	22	22
Total	100	100

A majority of students (60%) spend between 1–3 hours daily on social media, suggesting frequent engagement with digital platforms.

Table 3: Purpose of Using Social Media

Purpose	Number of Students	Percentage (%)
Academic learning	30	30
Collaborative learning	25	25
Entertainment	35	35
Communication	10	10
Total	100	100

The findings reveal that 55% of students use social media for academic and collaborative learning purposes, highlighting its educational relevance.

Table 4: Preferred Social Media Platform for Learning

Platform	Number of Students	Percentage (%)
WhatsApp	40	40
YouTube	28	28
Instagram	20	20
Facebook	12	12
Total	100	100

WhatsApp is the most preferred platform (40%) for academic collaboration due to ease of communication and group learning features.

Table 5: Level of Agreement that Social Media Enhances Collaborative Learning

Opinion	Number of Students	Percentage (%)
Strongly Agree	34	34
Agree	38	38
Neutral	16	16
Disagree	8	8
Strongly Disagree	4	4
Total	100	100

A significant majority (72%) agree that social media enhances collaborative learning, indicating positive student perception.

Chi-Square Analysis

Table 6: Gender and Use of Social Media for Collaborative Learning

Gender	Yes	No	Total
Male	32	16	48
Female	40	12	52
Total	72	28	100

$\chi^2 = 1.89$ (NS)

The chi-square result shows no significant association between gender and the use of social media for collaborative learning.

Table 7: Time Spent on Social Media and Collaborative Learning Effectiveness

Time Spent	Effective	Not Effective	Total
≤ 2 hours	28	22	50
> 2 hours	40	10	50
Total	68	32	100

$\chi^2 = 8.64$ (Significant at 5%)

There is a significant relationship between time spent on social media and perceived effectiveness of collaborative learning.

Table 8: Purpose of Social Media Use and Academic Performance

Purpose	Improved	Not Improved	Total
Academic use	42	13	55
Non-academic use	18	27	45

Purpose	Improved	Not Improved	Total
Total	60	40	100

$\chi^2 = 12.10$ (Significant at 1%)

The result indicates a strong association between academic use of social media and improved academic performance.

Table 9: Preferred Platform and Level of Collaboration

Platform Type	High	Low	Total
Interactive (WhatsApp/YouTube)	46	22	68
Others	14	18	32
Total	60	40	100

$\chi^2 = 5.78$ (Significant at 5%)

Interactive platforms significantly enhance collaborative learning compared to other platforms.

Table 10: Overall Social Media Usage and Collaborative Learning Satisfaction

Usage Level	Satisfied	Not Satisfied	Total
High usage	44	16	60
Low usage	18	22	40
Total	62	38	100

$X^2 = 6.45$ (Significant at 5%)

A significant association exists between higher social media usage and satisfaction with collaborative learning.

IX. CONCLUSION

The study confirms that social media serves as an effective learning tool that supports collaborative learning among college students. Active engagement with social platforms correlates with increased peer interaction, knowledge sharing, and academic support. However, distractions and privacy concerns remain challenges that need structured institutional strategies and guidelines for effective use. Integrating social media into pedagogical practice demands careful planning, digital literacy training, and moderation policies to fully realize its educational benefits.

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