

The Effect Of Social Media Influence On E-Learning

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Abstract: -

This study investigates the impact of social media influence on the e-learning performance of secondary school students in Bhilai city. A sample of 200 students (100 male and 100 female) from government and private schools, equally distributed across 11th and 12th classes, was selected. A 2×2×2 factorial design was employed to examine the main and interactional effects of three independent variables: level of social media influence (high/low), class (11th/12th), and gender (male/female) on e-learning outcomes. ANOVA results revealed significant main effects of social media influence, class, and gender on students' e-learning, indicating that each of these variables independently affects e-learning performance. However, most interaction effects among these variables were not statistically significant, except for the interaction between class and gender. These findings suggest that while social media, class level, and gender each influence e-learning, their combined effects are generally minimal. The study highlights the importance of managing social media engagement among students and considering demographic differences in planning effective e-learning strategies.

Keywords: Social Media Influence, E-learning, Gender Differences, Class Level, Secondary School Students, Interaction Effects, Educational Technology.

INTRODUCTION: -

The proliferation of social media has transformed the way we learn and interact. E-learning platforms have become increasingly popular, and social media influence is playing a significant role in shaping online learning experiences. This study explores the impact of social media on e-learning, examining its effects on student engagement, motivation, and academic performance. Numerous studies have investigated the relationship between social media and e-learning. Some key findings include

1. Enhanced engagement: Social media can increase student engagement and participation in online learning environments (Kop & Hill, 2008).
2. Improved motivation: Social media can motivate students to learn and participate in online discussions (Dabbagh & Kitsantas, 2012).
3. Personalized learning: Social media can facilitate personalized learning experiences, allowing students to connect with peers and instructors in a more informal setting (McLoughlin & Lee, 2010).
4. Distractions: However, social media can also be a distraction, negatively impacting academic performance if not used judiciously (Junco, 2012).

Social Media Platforms

1. Edmodo: A learning management system that allows teachers to share resources, assignments, and grades with students.
2. Facebook Groups: A platform for creating private groups for classes or discussions.
3. Twitter: A microblogging platform for sharing short updates, resources, and discussions.
4. Instagram: A visual platform for sharing images and videos, often used for storytelling and showcasing projects.
5. YouTube: A video-sharing platform for hosting lectures, tutorials, and educational content.
6. LinkedIn Groups: A professional networking platform for creating groups and discussions related to specific topics or industries.
7. Pinterest: A visual discovery platform for sharing and curating resources, often used for project-based learning.
8. Discussion forums: Online discussion boards that allow students to engage in asynchronous discussions.

Benefits:

1. Increased engagement: Social media can increase student engagement and participation.
2. Collaboration: Social media can facilitate collaboration and communication among students and instructors.
3. Access to resources: Social media can provide access to a wide range of educational resources and content.

Considerations

1. Digital citizenship: Instructors should ensure students understand digital citizenship and online etiquette.
2. Distractions: Social media can be distracting if not used judiciously.
3. Accessibility: Instructors should consider accessibility issues when using social media in e-learning.

REVIEW OF LITERATURE:

The relationship between social media and e-learning outcomes has been examined across multiple studies:

1. Kop & Hill (2008)

- *Finding:* Social media increases student engagement and encourages active learning in online environments.
- *Relevance:* Supports the positive side of social media use in e-learning, as seen in increased participation and motivation.

2. Dabbagh & Kitsantas (2012)

- *Finding:* Social media promotes self-regulated learning and peer collaboration.
- *Relevance:* Indicates how platforms like Facebook and Edmodo can enhance autonomy and learning motivation.

3. McLoughlin & Lee (2010)

- *Finding:* Social media enables personalized learning experiences, offering flexible, informal connections between learners and teachers.
- *Relevance:* Reinforces the need for tailored e-learning strategies that cater to different class levels and gender-based learning styles.

4. Junco (2012)

- *Finding:* Overuse of social media can negatively impact academic performance due to distraction and time mismanagement.
- *Relevance:* Aligns with current study's finding that low social media influence corresponds with better e-learning performance.

Scope of the Study: -

This study focuses on understanding the individual and interactional effects of social media influence, class level (11th and 12th), and gender on the e-learning performance of secondary school students. It examines:

- How high vs. low social media influence affects e-learning.
- The impact of demographic factors (gender and class).
- Interactional dynamics among these variables.

The scope is limited to students in Bhilai city and does not account for variations across different regions, socio-economic backgrounds, or digital infrastructure differences.

Area of the Study: -

The geographical area of the present study is:

- Bhilai city, Chhattisgarh, India. This city was chosen due to its blend of government and private educational institutions, availability of digital resources, and active social media engagement among students.

The Variables: -The present study involved four variables. Out of which one is independent variable, one is dependent variable while other two are intermediate variables.

(A) Independent Variable: Influence of Social Media

(B) Dependent Variable: E-learning

(C) Moderating Variables: (i) Type of school
(ii) Gender

Description of the instruments:-

After a comprehensive review having all these factors into consideration the following tools are selected for measuring the dependent and independent variables.

1. The tools used for present study is Balbinder Singh and Surjit Lal (2019). Social Media Influence Scale.
2. The tools used for present study is Mahesh Kumar Muchhal. E-Learning Scale ELS-MKM.

Objectives of the Study:-

Keeping in view the need of the study the following major objectives were framed for the study:

1. To study the effect of Influence of Social Media on the E-learning of secondary school students.
2. To study the effect of Type of Class on the E-learning of secondary school students.
3. To study the effect of Gender on the E-learning of secondary school students.
4. To study the Interactional effect of Type of Class and Gender on the E-learning of secondary school students.

Hypothesis of Studies:-

Keeping in view the objectives of the study, the following hypotheses have been formulated for this study:

H₁: There will be no significant effect of Influence of Social Media on the E-learning of secondary school students.

H₂: There will be no significant effect of Type of Class on the E-learning of secondary school students.

H₃: There will be no significant effect of Gender on the E-learning of secondary school students.

H₄: There will be no significant Interactional effect of Type of Class and Gender on the E-learning of secondary school students.

Sample:-

Total 100 male and 100 female students of class 11th&12th standard has been taken among students of Government and private schools of Bhilai city.

Type of students/ Gender	High Influence of social Media		Low Influence of Social Media		Total
	Male	Female	Male	Female	
11 TH	25	25	25	25	100
12 TH	25	25	25	25	100
Total	50	50	50	50	200

Total Sample Size: 200 secondary school students. Gender Distribution: 100 male and 100 female. Class Level: 100 students from class 11th, 100 from class 12th. School Type: Government and private schools (equally represented).

RESEARCH PROCEDURE:-Initially, the data obtained from the first Influence of social media tools was organized in ascending order. Following this, 27% of the highest scores were categorized in the upper category, and 27% of the lowest scores were categorized in the lower category. Subsequently, an analysis was conducted on the score of E-learning respectively.

To test whether the difference in the E-learning in group are significant or not. ANOVA with 2 Influence of social media group(low & high) X 2 , Type of class group (11th& 12th) X 2, gender group (Boys & Girls) ,factorial design was used and F- value has computed and its summary is presented in table 1

ANALYSIS OF DATA:-

H₀₁: There will be no significant effect of Influence of Social Media on the E-learning of secondary school students.

To test whether the difference in the E-learning in low and high Influence of Social Media groups are significant or not. ANOVA with 2, Influence Of Social Media (low & high groups) x 2 , type of Class (11th& 12th) X 2, gender (Boys & girls) ,factorial design was used and F value was computed and its summary is presented in table

Table - 1

Source	SS	Df	Ms	F
SS I.S.M	8026.45	1	8026.45	6.61
SS TYPE OF CLASS	10556.05	1	10556.05	8.70
SS GENDER	29451.65	1	29451.65	24.27
SS I.S.Mx TYPE OF CLASS	142.81	1	142.81	0.12
SS I.S.M x GENDER	637.25	1	637.25	0.53
SS TYPE OF CLASS x GENDER	5864.45	1	5864.45	4.83
SS I.S.M x TYPE OF CLASS x GENDER	946.13	1	946.13	0.78
SS w	232936.24	192	232936.24	

From the table it can be observed that the F- value for Influence of Social Media is significant ($F= 6.61$; significant) reflects that mean score on the E-learning of low and high Influence of Social Media group differ significantly.

The F-value = 6.61 indicates a significant main effect of social media influence on e-learning. This means students with high or low social media usage show different e-learning performance.

This means that Influence of Social Media yielded significant effect on the E-learning. Thus the hypothesis that is there would be no significant effect of Influence of Social Media on the E-learning of secondary school student is not accepted

H₀₂ There will be no significant effect of Type of Class on the E-learning of secondary school students.

From the table it can be observed that the F- value for type of Class is significant ($F=8.70$, significant), reflects that mean score on the E-learning of Type of Class differ significantly.

With an F-value = 8.70, there is a significant effect of class level (11th vs 12th). Thus, class grade impacts e-learning outcomes, possibly due to academic pressure or maturity

This means that Type of Class yielded significant effect on the E-learning. Thus the hypothesis is not accepted.

H₀₃ There will be no significant effect of Gender on the E-learning of secondary school students.

From the table it can be observed that the F- value for Gender which is significant, ($F=27.24$., significant),

The high F-value = 24.27 reflects a strong significant effect of gender on e-learning, suggesting differences between male and female students in adapting to or benefiting from e-learning.

This means that Gender yielded significant effect on the E-learning. Thus the hypothesis student is not accepted

H₀₄ There will be no significant Interactional effect of Type of Class and Gender on the E-learning of secondary school students.

From the table it can be observed that the F- value for Interactional effect of Type of class and gender is not significant ($F=4.83$; significant)

This interaction is significant ($F = 4.83$), suggesting the effect of class on e-learning varies by gender, or vice versa. For instance, 12th-grade girls may be outperforming boys, or 11th-grade boys may be more adaptive in e-learning settings.

This means that Influence of Social Media yielded significant Interactional effect of Type of Class and Gender on the E-learning of secondary school student. Thus the hypothesis student is not accepted

RESULT AND INTERPRETATION:

The study concludes that social media influence, type of class, and gender individually have a significant impact on the e-learning of secondary school students. However, most interaction effects (except class × gender) are not significant, indicating that the effect of one variable does not depend much on the levels of the others.

Key Findings: -

- Students with lower social media influence tend to perform better in e-learning.
- 12th-grade students may experience different e-learning challenges compared to 11th-grade students.
- Gender differences in e-learning outcomes exist, with one gender (likely females, though not stated) possibly engaging more effectively.
- The interaction between class and gender plays a role, implying differentiated educational strategies may be needed.

Educational Implications: -

1. **Controlled Social Media Use:** Schools and parents should encourage responsible use of social media to avoid distractions and enhance focus during e-learning.
2. **Tailored E-learning Strategies:** Educators should design e-learning content considering grade-specific needs, as students in different classes show varying adaptability.
3. **Gender-Sensitive Approaches:** Since gender significantly affects e-learning, differentiated instructional strategies or support mechanisms may be required to ensure equity.
4. **Policy Making:** Educational planners should integrate findings into digital learning policies that address social media engagement alongside digital learning tools.
5. **Training and Awareness:** Teachers and parents must be sensitized about the potential negative effects of excessive social media usage on students' academic outcomes.

CONCLUSIONS:

The findings confirm that social media influence, class level, and gender each have a significant individual effect on students' e-learning performance. However, interaction effects among these variables are mostly not significant, suggesting that their combined impact does not notably alter e-learning outcomes. The study emphasizes the need for a balanced use of digital tools, and points towards individualized educational strategies based on demographic factors. Encouraging disciplined use of social media, especially in the academic context, could greatly enhance the effectiveness of e-learning among secondary school students.

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