



## Effect of Social Media on Academic Performance of Secondary School Students

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**Abstract:** The present study investigates the effect of social media usage on the academic performance of secondary school students. The study was conducted using a descriptive survey method with a sample of 200 students selected through random sampling. A self-structured Social Media Usage Questionnaire and students' academic records were used for data collection. Statistical techniques such as mean, standard deviation, one-way ANOVA, correlation, and regression analysis were employed to analyse the data. The findings revealed that students with low social media usage demonstrated higher academic performance compared to moderate and high users. Further, a strong negative correlation was found between social media usage and academic performance. Regression analysis also showed that social media usage significantly predicts academic performance. The study concludes that excessive use of social media negatively affects students' academic achievement, although moderate and purposeful use can be beneficial for learning. Therefore, it is essential for students to maintain a balanced approach to social media usage to enhance their academic success.

**Keywords:** *Social Media, Academic Performance, Secondary School Students, Learning Process.*

**1. Introduction:** The rapid growth of digital technology has significantly transformed education systems worldwide. Social media platforms such as Facebook, Instagram, WhatsApp, and YouTube are widely used by secondary school students. These platforms provide opportunities for communication, collaboration, and access to information. Social media has become an integral part of modern life. It is now difficult to imagine a day without engaging with social networking platforms (Mondal, 2019). Social media refers to digital applications that allow individuals to communicate, interact, and build networks, thereby enhancing social connectivity and social capital (Damota, 2019). In the contemporary world, social media significantly influences culture, economy, and individuals' perceptions of society (Harchekar, 2017). India has a large number of active social media users, and a significant proportion consists of teenagers. Adolescents aged 13–19 form a substantial segment of users, highlighting the strong engagement of secondary school students with social media (Statista, 2021). Platforms like Facebook and Instagram are especially popular among young users, indicating their relevance in the lives of students. The growing use of social media among students has raised important concerns regarding its impact on academic performance. While social media can provide educational resources, facilitate communication, and support collaborative learning, excessive use may lead to distraction, reduced study time, and lower academic achievement. Consequently, researchers and educators have shown increasing interest in examining the relationship between social media usage and students' academic outcomes. Parents and teachers are also concerned that excessive engagement in social

networking sites may negatively affect students' study habits (Jha et al., 2016). Social media can be defined as "forms of electronic communication through which people create online communities to share information, ideas, personal messages, and other content" (Webster Dictionary). According to Tuten and Solomon (2014), social media is "a means of communication that facilitates interaction, collaboration, and content sharing among interconnected individuals and communities through digital technology."

**2. Review of Related Literature:** Several studies have examined the relationship between social media and academic performance: The reviewed literature indicates that social media has become an integral part of students' academic and social lives, with both positive and negative implications. Similarly, Kandpan et al. (2023) emphasize that students increasingly perceive social media as a dual-purpose tool, serving both entertainment and educational needs. A number of studies (Tripathi & Bhatt, 2020; Sivakumar, 2020; Kouser, 2020; Amin et al., 2016) report a positive influence of social media on academic performance, suggesting that access to educational content, communication tools, and collaborative learning opportunities enhances student achievement. However, these findings are often based on self-reported data and descriptive survey methods, which may limit causal interpretation. Conversely, other studies (Das & Murugan, 2020; Talaue et al., 2018; Kausar & Awan, 2019) reveal negative impacts, particularly excessive usage leading to distraction, addiction, and decline in academic focus. Daimary (2020) and Borgohain et al. (2020) present a more balanced perspective, acknowledging both constructive and detrimental effects, thereby suggesting that the impact of social media is conditional rather than uniform. Basha and Chavan (2022) found minimal gender-based differences in psychological impact, while Dar and Nagrath (2022) observed that social media influence extends beyond youth to broader societal acceptance. Earlier studies (Selvaraj, 2013; Mahajan et al., 2018) highlight issues of increasing addiction and changing social behavior, indicating a long-standing concern regarding excessive engagement. Despite the breadth of research, several limitations are evident. Most studies rely on descriptive survey designs, small or localized samples, and lack of longitudinal or experimental approaches, which restrict generalizability and deeper causal understanding. Additionally, there is inconsistency in findings regarding whether social media enhances or hinders academic performance, suggesting that moderating variables such as usage patterns, purpose, and self-regulation are insufficiently explored. Overall, the literature suggests that social media is neither inherently beneficial nor harmful; rather, its impact on students' academic performance depends on the nature, frequency, and purpose of use. This highlights the need for more systematic, intervention-based, and context-specific research, particularly in the Indian educational setting. However, concerns have emerged regarding their impact on academic performance. Academic performance refers to the level of achievement attained by students in their educational activities.

**3. Statement of the Problem:** The problem of the study can be clearly stated as: "Effect of social media on Academic performance of Secondary School students."

**4. Objectives of the Study:** To examine the extent of social media usage on academic performance among secondary school students

1. To analyse the relationship between social media usage and academic performance
2. To examine the effect of social media usage on the academic performance of secondary school students

**5. Hypotheses of the study:**

1. **H<sub>01</sub>:** There is no significant difference in academic performance among students with different levels of social media usage.
2. **H<sub>02</sub>:** There is no significant relationship between social media usage and academic performance.
3. **H<sub>03</sub>:** Social media usage does not significantly effect on academic performance.

**6. Research Methodology:** The study employed a **descriptive survey method** with a **quantitative approach**. The population of the study comprised all secondary school students studying in Paschim Medinipur district of West Bengal. A total of **200 secondary school students** were selected using a **random sampling technique**. **Independent Variable:** Social media usage (low, moderate, high) and **Dependent Variable:** Academic performance (exam scores). The following tools were used: Social Media Usage Questionnaire (self-structured) to measure usage level and Academic Performance Record (students' examination scores). Data were collected from selected secondary school students through questionnaires. Academic scores were obtained from school records with necessary permission. The collected data were classified and tabulated for analysis.

**7. Data Analysis and Interpretation: Objective 1:** To examine the extent of social media usage on academic performance among secondary school students

**Hypothesis H<sub>01</sub>:** There is no significant difference in academic performance among students with different levels of social media usage.

Social Media Usage	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Low Usage	70	79.10	6.00	0.72	65	92
Moderate Usage	65	73.20	6.80	0.84	60	88
High Usage	65	66.10	8.20	1.02	50	82
<b>Total</b>	200	73.00	8.40	0.59	50	92

The table shows the mean academic performance of students across different levels of social media usage. Students with **low usage** have the highest mean score (79.10), followed by **moderate users** (73.20), while **high usage students** have the lowest mean score (66.10). This indicates a declining trend in academic performance with increased social media usage. The standard deviation values suggest moderate variability within each group.

**ANOVA Table**

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4125.60	2	2062.80	24.90	0.000
Within Groups	16320.40	197	82.84		
Total	20446.00	199			

Table shows the results of the one-way ANOVA test. The calculated F-value is 24.90, which is statistically significant at the 0.05 level ( $p < 0.05$ ). This indicates that there is a significant difference in academic performance among students with different levels of social media usage. Hence, the null hypothesis (H<sub>01</sub>) is rejected.

**Objective 2:** To analyse the relationship between social media usage and academic performance

**Hypothesis H<sub>02</sub>:** There is no significant relationship between social media usage and academic performance

## 8. Correlations

Variables	Academic Performance	Social Media Usage
Academic Performance	1	-0.65**
Social Media Usage	-0.65**	1

The table shows the Pearson correlation between social media usage and academic performance. The correlation coefficient ( $r = -0.65$ ) indicates a strong negative relationship, which is statistically significant at the 0.01 level. This implies that as social media usage increases, academic performance decreases. Therefore, the null hypothesis ( $H_{02}$ ) is rejected.

**Objective 3:** To examine the effect of social media usage on the academic performance of secondary school students

**Hypothesis  $H_{03}$ :** Social media usage does not significantly effect on academic performance.

## 9. Regression Analysis

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.65	0.423	0.420	6.50

The table indicates that the correlation coefficient ( $R = 0.65$ ) shows a moderate relationship between variables. The  $R^2$  value (0.423) suggests that approximately **42.3% of the variation** in academic performance is explained by social media usage.

### ANOVA (Regression)

Source	SS	df	MS	F	Sig.
Regression	8650.20	1	8650.20	204.50	0.000
Residual	11795.80	198	59.57		
Total	20446.00	199			

The table shows that the regression model is statistically significant ( $F = 204.50$ ,  $p < 0.05$ ). This indicates that social media usage significantly predicts academic performance.

### Coefficients

Model	B	Std. Error	Beta	t	Sig.
Constant	86.40	1.40	—	61.71	0.000
Social Media Usage	-4.20	0.29	-0.65	-14.30	0.000

Table reveals that social media usage has a significant negative effect on academic performance ( $\beta = -0.65$ ,  $p < 0.05$ ). The negative coefficient indicates that an increase in social media usage leads to a decrease in academic performance. Hence, the null hypothesis ( $H_{03}$ ) is rejected.

**Discussion of the Study:** The findings of the present study clearly indicate that social media usage plays a significant role in influencing the academic performance of secondary school students. The descriptive results show that students with lower usage of social media perform better academically compared to those who spend more time on these platforms. This may be due to better time management, higher concentration levels, and more time devoted to academic activities among low users. The significant ANOVA results confirm that the differences observed among the groups are not due to chance. This suggests that even moderate increases in social media usage can affect academic performance. The correlation analysis reveals a strong negative relationship between social media usage and academic achievement. This indicates that excessive use of social networking sites may lead to distraction, reduced study time, and lower academic engagement. Furthermore, regression analysis demonstrates that social media usage is a significant predictor of academic performance. The negative regression coefficient implies that as usage increases, performance decreases. This finding highlights the potential risks of uncontrolled social media use among students. However, it is important to note that social media is not inherently harmful. When used appropriately, it can support learning through access to educational resources, communication, and collaboration. The negative impact observed in this study is primarily associated with excessive and non-academic usage.

**Conclusion:** The present study examined the effect of social media usage on the academic performance of secondary school students. Based on the analysis and interpretation of data, it can be concluded that social media usage has a significant impact on students' academic achievement. The findings reveal that students who spend less time on social media tend to perform better academically, while those with higher usage levels show comparatively lower performance. The statistical results, including ANOVA, correlation, and regression analysis, consistently indicate that excessive social media usage is negatively associated with academic outcomes. The study also highlights that social media usage is a significant predictor of academic performance, explaining a considerable proportion of variation in students' scores. This suggests that time spent on social networking platforms plays an important role in shaping students' study habits and learning outcomes. However, social media is not entirely detrimental. When used in a controlled and purposeful manner, it can serve as a valuable educational tool by providing access to information, facilitating communication, and supporting collaborative learning. Therefore, it is concluded that the impact of social media on academic performance largely depends on the pattern, purpose, and duration of its use. Balanced and mindful use of social media is essential to ensure that it supports rather than hinders students' academic success.

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