



Relationship Between Student Engagement And Social Media Of Secondary School Students

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ABSTRACT

This research aims to examine the relationship between student engagement and social media awareness among secondary school students and also find out the effect of sex, type of management and awareness levels about social media of students on their student engagement. The sample consisted of 360 students (180 boys and 180 girls) drawn equally from three types of school management -government, private aided and private unaided - in Gowribidanur Taluk of Chikkaballapura District, with 120 students from each category. The self constructed tools namely Social Media Awareness Scale and the Student Engagement Scale were used as research tools to measure students' awareness of social media and their engagement in learning activities. Data collection was carried out through personal visits to the selected schools, where students' demographic details and responses to the scales were gathered. In this study, student engagement was treated as the dependent variable, while social media awareness served as the independent variable. The variables like sex and type of school management were considered as background variables. The data was statistically analyzed using independent t-tests, One-Way ANOVA and Karl Pearson's Product Moment Correlation with the help of the SPSS software package. The findings of this research aim to provide knowledge into how social media awareness influences student engagement levels. Understanding this relationship can help educators design more effective teaching strategies and interventions to enhance student engagement in secondary schools. This study contributes to the broader discourse on the impact of social media on learning and offers practical implications for educators and policymakers.

Keywords: Student engagement, social media, secondary school students, sex, type of management.

1. INTRODUCTION

In the present digital era, social media has emerged as one of the most influential platforms shaping the lives of students, particularly at the secondary school level. Social media is no longer confined to social networking but has become an integral part of students' academic and personal development. Platforms such as YouTube, WhatsApp, Instagram and Facebook are not only tools of entertainment but also serve as channels for knowledge acquisition, collaborative learning and skill development. However, the increasing use of social media also raises concerns about its impact on student engagement, which

refers to the level of active participation, commitment and involvement of students in their learning activities. Student engagement is considered a critical factor for academic achievement, motivation and long-term educational success (Fredricks, Blumenfeld, & Paris, 2004; Singh & Mahapatra, 2020). In the Indian context, secondary school students represent a crucial phase of adolescence where their interaction with social media significantly influences their academic interests, study habits and engagement in learning.

At the same time, the role of demographic variables such as sex, type of school management and levels of social media awareness in modifying engagement cannot be overlooked. Research in India has shown that government and private schools differ significantly in terms of resources, learning opportunities and student participation (Mishra & Jha, 2019). Similarly, gender differences in digital media usage patterns often reflect in learning involvement, where girls are reported to be more disciplined and academically engaged compared to boys (Sharma & Gupta, 2021). Social media awareness, which implies students' knowledge and understanding of the constructive and responsible use of digital platforms, also plays a vital role in influencing engagement levels (Kumar & Prasad, 2020). Thus, examining the relationship between social media awareness and student engagement, while considering sex and school management type as background variables, is of great importance in the Indian educational context.

2. REVIEW OF RELATED LITERATURE

Review of related literature serves as the foundation for any research as it situates the present study within the broader body of knowledge. For the present investigation on the 'relationship between student engagement and social media of secondary school students', the review highlights empirical studies, theoretical perspectives and research findings pertaining to student engagement and social media use. Student engagement has been widely studied as a multidimensional construct comprising cognitive, emotional/affective and behavioral components, each of which influences students' academic achievement, motivation and overall well-being. In recent years, the advent of digital technologies and widespread use of social media platforms have created new avenues for interaction, collaboration and learning, particularly among adolescents. However, while social media has the potential to enhance engagement, it also poses risks of distraction, reduced attention and overuse. Hence, a review of past research is necessary to examine how student engagement has been conceptualized, measured and linked with social media in different contexts.

Studies Related to Student Engagement and Social Media: Several studies have examined student engagement in relation to academic achievement, classroom climate and online learning environments. For instance, Singhi and Anmol (2025) demonstrated that cognitive and affective engagement significantly predict academic performance, with gender differences in engagement patterns. Similarly, Wong et al. (2024) through a systematic review and meta-analysis, concluded that behavioral, cognitive and affective engagement are strongly correlated with academic achievement and subjective well-being,

indicating engagement's pivotal role in learning outcomes. When examining the role of digital platforms, Joshi (2024) and Agarwal & Kurhade (2024) found that online learning platforms provide opportunities for enhanced student interaction and engagement but also introduce challenges such as digital distraction and limited peer-to-peer collaboration. These findings suggest that technology-enabled environments need to be designed carefully to sustain meaningful engagement. Specifically addressing social media, Manu et al. (2023) highlighted that international students in China used social media to ease acculturative stress and foster school engagement through networking and information sharing. Assefa, Moges and Kumar (2023) also found that while both social media and student engagement significantly impacted academic achievement, social media did not mediate the relationship between engagement and performance, but rather exerted a direct influence. In language-learning contexts, Wang, Wang and Li (2022) noted that social media enhanced English as a Foreign Language (EFL) students' engagement inside and outside the classroom, emphasizing its potential as a pedagogical tool. Earlier studies also reinforce the link between student engagement and learning outcomes. Lei, Cui and Zhou (2018) established through a meta-analysis that student engagement positively correlates with academic achievement, while Lee (2014) found emotional and behavioral engagement significantly predicted reading performance. These findings, when viewed alongside recent studies, indicate that social media, as a dominant form of adolescent interaction, may play a crucial role in shaping engagement patterns.

Overview of Studies: The reviewed studies consistently highlight student engagement as a significant predictor of academic performance, learning retention and well-being. Engagement is influenced not only by individual factors such as self-efficacy and motivation (Woreta, 2024) but also by contextual elements like school climate (Tomaszewski, Xiang & Huang, 2023) and digital environments (Joshi, 2024; Agarwal & Kurhade, 2024). Social media, in particular, emerges as a double-edged sword. While it facilitates communication, collaboration and acculturation (Manu et al., 2023; Wang et al., 2022), it can also cause distraction, superficial engagement and inequities in access (Agarwal & Kurhade, 2024; Joshi, 2024). Most empirical evidence points to a positive association between social media use and certain dimensions of student engagement, though the nature and strength of this relationship vary across contexts, age groups and learning environments.

Research Gap: Although there is a substantial literature on student engagement and its relationship with academic performance, relatively fewer studies have focused on the direct relationship between student engagement and social media use among secondary school students. Much of the existing research explores engagement in higher education (Agarwal & Kurhade, 2024; Ma & Wei, 2022), online learning environments or international student populations (Manu et al., 2023). Studies that specifically target adolescents in secondary schools remain limited, particularly in the Indian context where social media use among teenagers is rapidly increasing. Moreover, while research has established that social media influences engagement, the findings are inconclusive regarding whether social media enhances deep, sustained engagement or promotes only surface-level participation. This gap underlines the need for

systematic inquiry into how social media use shapes cognitive, affective and behavioral engagement of secondary school students, which is the focus of the present study.

3. SIGNIFICANCE OF THE STUDY

The present study is significant as it addresses the contemporary educational challenges and opportunities posed by social media usage among secondary school students in India. With the Government of India emphasizing digital learning initiatives such as ‘Digital India’ and the ‘National Education Policy’ (NEP, 2020), it becomes crucial to understand how social media awareness contributes to improving student engagement. The study provides valuable knowledge into how boys and girls, as well as students from different school management types, engage differently with learning activities in relation to their social media awareness levels. This research not only adds to the growing body of knowledge on digital learning in the Indian context but also provides practical implications for teachers, school administrators and policymakers. By highlighting the positive role of social media awareness in enhancing engagement, the findings can guide schools in designing digital literacy programs, integrating social media into pedagogical practices and creating inclusive strategies to bridge gaps between different groups of students. In doing so, the study contributes to fostering a balanced, responsible and constructive use of social media in secondary education.

4. STATEMENT OF THE PROBLEM

The research topic selected for the present examination is *“Relationship between Student Engagement and Social media of Secondary School Students.”*

This research aims to examine the relationship between student engagement and social media awareness among secondary school students and also find out the effect of sex, type of management and awareness levels about social media of students on their students’ engagement.

5. OBJECTIVES

The objectives considered for the investigation is as follows:

1. To find out the relationship between Student Engagement and Social Media of secondary school students.
2. To find out the differences in the Student Engagement of secondary school students with regard to sex.
3. To find out the differences in the Student Engagement of secondary school students with regard to type of management.
4. To find out the differences in the Student Engagement of secondary school students with regard to different levels of social media awareness.

6. HYPOTHESES

The following hypotheses directed the research is as follows:

1. There is no significant relationship between Student Engagement and Social Media Awareness of secondary school students.

2. There is no significant difference in the Student Engagement of secondary school boys and girls.
3. There is no significant difference in the Student Engagement of secondary school students studying in government, private aided and private unaided schools.
4. There is no significant difference in the Student Engagement of secondary school students with different levels of awareness about social media.

7. METHODOLOGY

This research aims to examine the relationship between student engagement and social media awareness among secondary school students and also find out the effect of sex, type of management and awareness levels about social media of students on their student engagement. The sample consisted of 360 students (180 boys and 180 girls) drawn equally from three types of school management -government, private aided and private unaided - in Gowribidanur Taluk of Chikkaballapura District, with 120 students from each category. The self constructed tools like Social Media Awareness Scale and the Student Engagement Scale were used as research tools to measure students' awareness of social media and their engagement in learning activities. Data collection was carried out through personal visits to the selected schools, where students' demographic details and responses to the scales were gathered. In this study, student engagement was treated as the dependent variable, while social media awareness served as the independent variable. The variables sex and type of school management were considered as background variables. The data was statistically analyzed using independent t-tests, One-Way ANOVA and Karl Pearson's Product Moment Correlation with the help of the SPSS software package. In all the cases, the level of significance was fixed at 0.05 and 0.01 confidence levels. The results were got with the help of SPSS Package and MS Excel application.

8. DATA ANALYSIS AND RESULTS:

Table 1: Correlation Results between Student Engagement and Social Media Awareness scores of secondary school students.

Variables	N	df (N-2)	'r' value	Level of Significance
Student Engagement	360	358	0.323	**
Social Media Awareness				

**Significant at 0.01 level. (Table value is 0.148)

The correlation analysis presented in Table 1 shows that the obtained correlation coefficient ('r' = 0.323) between student engagement and social media awareness among secondary school students is statistically significant at the 0.01 level. Since the calculated value (0.323) is greater than the table value (0.148) at 358 degrees of freedom, the null hypothesis stating that there is no significant relationship between student engagement and social media awareness is rejected. This indicates a positive and significant relationship between the two variables, suggesting that students with higher awareness of

social media tend to show better engagement in their learning activities. However, the magnitude of the correlation ($r = 0.323$) reflects a moderate relationship, which implies that while social media awareness contributes to student engagement.

Table-2: Independent samples 't' test results on Student Engagement scores of secondary school students with regard to sex.

Sex	Number	Mean	Standard Deviation	't' value	Sig. Level
Boys	180	242.233	51.989	2.62	Sig. at 0.01 level
Girls	180	254.666	36.686		

Note: Table Value of 't' for df 358 is 2.59 at 0.01 level of confidence

The results of the independent samples 't' test presented in Table 2 reveal that the mean score of student engagement for girls ($M = 254.666$, $SD = 36.686$) is higher than that of boys ($M = 242.233$, $SD = 51.989$). The calculated 't' value of 2.62 exceeds the table value of 2.59 at 358 degrees of freedom, which is significant at the 0.01 level of confidence. This indicates that there is a statistically significant difference in student engagement between boys and girls. Hence, the null hypothesis stating that there is no significant difference in the student engagement of secondary school boys and girls is rejected. The findings suggest that girls are significantly more engaged in their learning activities compared to boys.

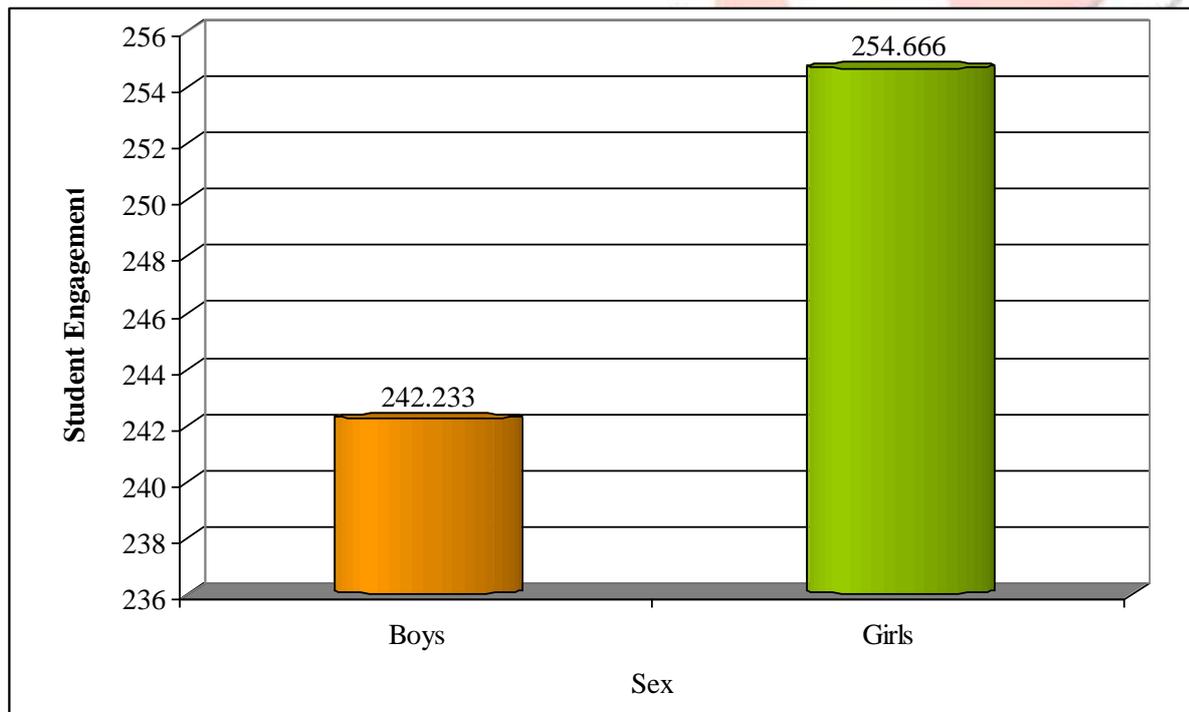


Fig.1:

Comparison of mean scores on Student Engagement of the secondary school students with regard to sex.

Table-3: One-Way ANOVA results on Student Engagement scores of secondary school students with regard to type of management.

Source of Variance	Sum of squares	Degree of Freedom	Mean Squares	'F' Value	Sig. level
Between Groups	73198.950	2	36599.475	19.64	Sig. at 0.01 level
Within Groups	665454.150	357	1864.017		
Total	738653.100	359			

Table value of 'F' for df 2, 357 is 4.66 at 0.01 level significant

The One-Way ANOVA results in Table 3 indicate that the calculated 'F' value of 19.64 is greater than the table value of 4.66 at 2 and 357 degrees of freedom, which is significant at the 0.01 level. This reveals that there is a statistically significant difference in student engagement scores among secondary school students studying in government, private aided and private unaided schools. Thus, the null hypothesis stating that there is no significant difference in student engagement of students with regard to type of management is rejected. The findings suggest that the type of school management has a significant influence on the engagement levels of students.

Table-3(i): Scheffe's Post Hoc Analysis on Student Engagement scores of secondary school students with regard to type of management (studying in government, private aided and private unaided schools).

Type of Management			Mean Difference	Critical Difference
Govt. Schools	Pvt. Aided Schools	Pvt. Unaided Schools		
266.050	248.175	-	17.875*	13.721
-	248.175	231.125	17.050*	13.721
266.050	-	231.125	34.925*	13.721

*Significant at 0.05 level.

The Scheffe's Post Hoc analysis presented in Table 3(i) further clarifies the nature of differences among the three types of school management. The results show that students from government schools (M = 266.050) have significantly higher engagement than students from private aided schools (M = 248.175), with a mean difference of 17.875, which exceeds the critical difference of 13.721. Similarly, private aided school students have significantly higher engagement compared to private unaided school students (M = 231.125), with a mean difference of 17.050, also exceeding the critical difference. Furthermore, government school students show significantly higher engagement than private unaided school students, with the largest mean difference of 34.925, which is well above the critical difference. These results highlight that student engagement is highest in government schools, followed by private aided schools and lowest in private unaided schools.

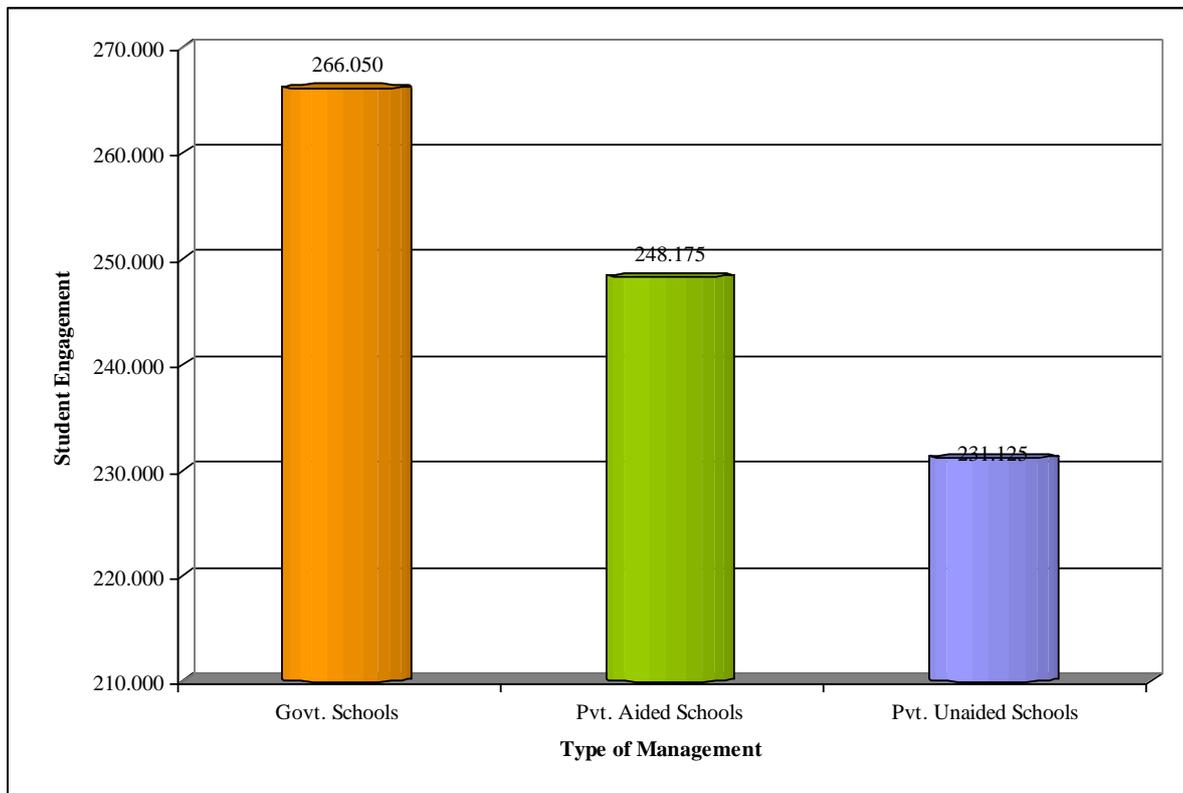


Fig.2: Comparison of mean scores on Student Engagement of the secondary school students with regard to type of management.

Table-4: One-Way ANOVA results on Student Engagement scores of secondary school students with different awareness levels about social media usage.

Source of Variance	Sum of squares	Degree of Freedom	Mean Squares	'F' Value	Sig. level
Between Groups	85711.028	2	42855.514	23.43	Sig. at 0.01 level
Within Groups	652942.072	357	1828.969		
Total	738653.100	359			

Table value of 'F' for df 2, 357 is 4.66 at 0.01 level significant

The One-Way ANOVA results in Table 4 reveal that the calculated 'F' value of 23.43 is much higher than the table value of 4.66 at 2 and 357 degrees of freedom, which is significant at the 0.01 level. This indicates that there is a statistically significant difference in student engagement scores among secondary school students with different levels of social media awareness (low, moderate and high). Therefore, the null hypothesis stating that there is no significant difference in student engagement with respect to different levels of social media awareness is rejected. These findings suggest that social media awareness plays a significant role in influencing student engagement.

Table-4(i): Scheffe's Post Hoc Analysis on Student Engagement scores of secondary school students with different awareness levels about social media usage (students having low, moderate and high levels of social media awareness).

Social Media Awareness levels			Mean Difference	Critical Difference
Low awareness	Moderate awareness	High awareness		
195.000	246.882	-	51.882*	27.841
-	246.882	281.307	34.425*	17.900
195.000	-	281.307	86.307*	31.986

*Significant at 0.05 level.

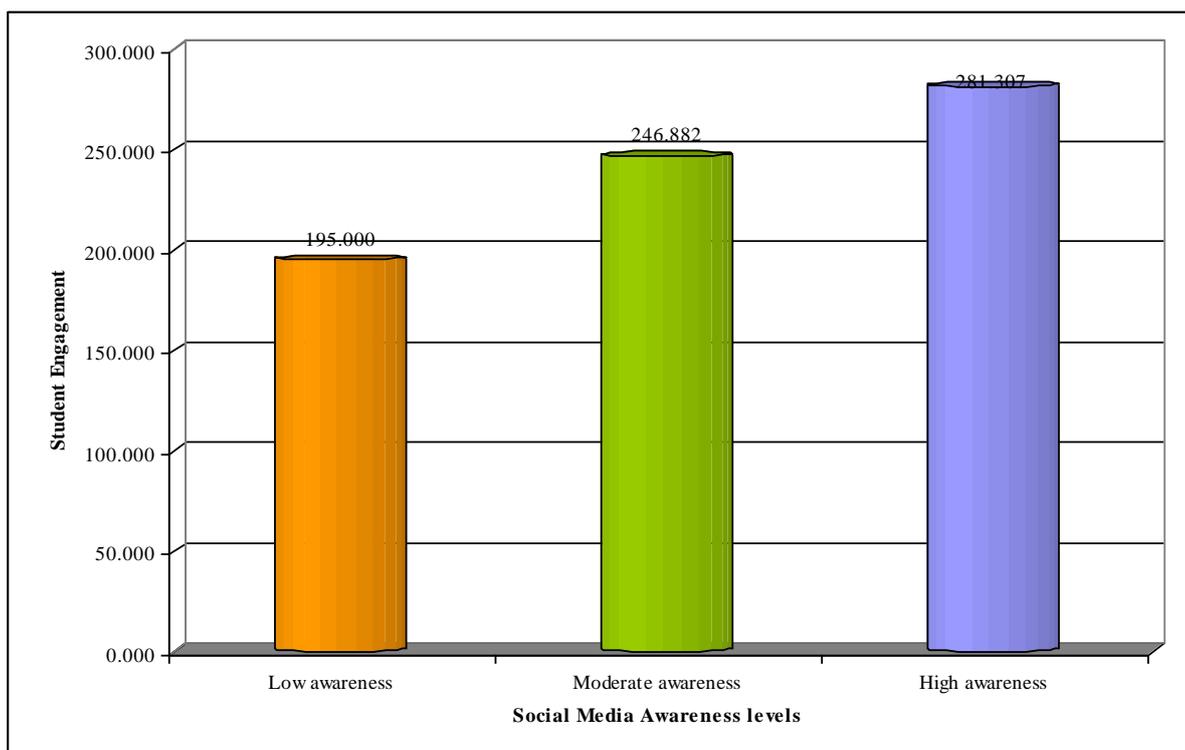


Fig.3: Comparison of mean scores on Student Engagement of the secondary school students with regard to social media awareness levels.

The Scheffe's Post Hoc analysis in Table 4(i) provides further knowledge into the differences between the groups. The results indicate that students with moderate social media awareness ($M = 246.882$) have significantly higher engagement than students with low awareness ($M = 195.000$), with a mean difference of 51.882, which is greater than the critical difference of 27.841. Similarly, students with high awareness ($M = 281.307$) show significantly higher engagement than those with moderate awareness, with a mean difference of 34.425, which exceeds the critical difference of 17.900. Moreover, students with high awareness also demonstrate significantly higher engagement than students with low awareness, with the largest mean difference of 86.307, surpassing the critical difference of 31.986. These results clearly establish that student engagement increases with the level of social media awareness, being lowest among students with low awareness and highest among those with high awareness.

9. MAJOR FINDINGS

The present study explored the relationship between student engagement and social media awareness among secondary school students, considering sex, type of management and levels of awareness as variables. The correlation analysis revealed a positive and moderate significant relationship between student engagement and social media awareness, indicating that students with higher awareness of social media tend to be more engaged in their learning activities. The independent samples 't' test results showed that girls were significantly more engaged than boys, suggesting a gender difference in engagement levels. Further, the One-Way ANOVA results demonstrated that student engagement varied significantly across types of school management, with government school students showing the highest engagement, followed by private aided and private unaided school students. The Scheffe's Post Hoc analysis confirmed significant pairwise differences among all three groups. Similarly, the ANOVA results also revealed significant differences in student engagement with respect to different levels of social media awareness. Post Hoc comparisons indicated that students with high awareness of social media exhibited the highest engagement, followed by those with moderate awareness, while students with low awareness scored the lowest.

10. CONCLUSION

From the findings of the study, it can be concluded that social media awareness has a significant and positive association with student engagement among secondary school students. Girls are found to be more engaged in learning activities than boys, pointing towards gender-based variations in engagement. The type of school management significantly influences student engagement, with government schools providing a more engaging environment compared to private aided and unaided institutions. Further, students with high social media awareness demonstrate higher engagement levels than those with moderate or low awareness, highlighting the role of digital literacy in enhancing learning involvement. Overall, the results suggest that both individual factors (sex and social media awareness) and institutional factors (type of management) contribute meaningfully to differences in student engagement among secondary school students.

11. EDUCATIONAL IMPLICATIONS

The findings of the study carry several important implications for educators, school administrators and policymakers. Since social media awareness is positively linked to student engagement, schools should integrate digital literacy programs and responsible social media usage into their curriculum to foster meaningful engagement in learning. Special attention should be given to boys, who displayed comparatively lower engagement, by designing gender-sensitive teaching strategies and mentoring programs that encourage active participation. The higher engagement levels observed in government schools suggest the importance of strengthening participatory and inclusive practices in private institutions to match this standard. Furthermore, differentiated interventions may be planned for students with varying levels of social media awareness - for instance, training and workshops for low-awareness students to

bridge the gap and advanced digital engagement opportunities for high-awareness students to channel their online presence towards productive learning. Overall, the study emphasizes the need for schools to leverage social media awareness as a tool to enhance student engagement while ensuring a balanced and constructive use of digital platforms.

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