



# A Study on Relationship between Social Media Addiction and Academic Achievement of Secondary School Students in Tumkur District

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**Abstract:** This study investigates the relationship between social media addiction and the Academic Achievement of secondary school students, considering the potential influence of sex and the type of school management. The main objective is to understand the connection between social media addiction and secondary school students' Academic Achievement, with formulated hypotheses focused on these variables. The SMA (Social Media Addiction) Scale developed by Natasha Saqib and Faseeh Amin (2020) used as the primary tool for assessing students' social media addiction, supplemented by Academic Achievement data obtained from school records. The study consist a sample of 120 participants of IX standard students chosen from government, private aided and unaided secondary schools in Tumkur District. Data analysis involves descriptive statistics such as mean and standard deviation, as well as independent 't' test, ANOVA and coefficients of correlation. The collected data was analyzed by independent 't' test, 'F' test and 'r' test statistics. All the results got with the help of SPSS Package and MS Excel. The level of significance was fixed at 0.05 and 0.01 level of confidence in all the cases. The findings of this study highlight the multifaceted factors influencing academic achievement among secondary school students. The absence of gender-based disparities in academic performance suggests a need for inclusive educational practices that cater to the diverse needs of all students. Moreover, the significant differences in academic achievement based on school management type and levels of social media addiction highlight the importance of creating supportive learning environments and implementing targeted interventions to address systemic inequalities and promote positive digital citizenship among students.

**Index Terms** – Social media addiction, academic achievement, secondary school, students.

## I. INTRODUCTION

Social media addiction has become a prevalent concern among adolescents and young adults, with substantial implications for academic achievement. Sarkar (2023) delved into this issue by examining the relationship between social media addiction and the academic performance of secondary school students in Tumkur District. The study uncovered varying levels of social media addiction among students, ranging from none to severe addiction. Significantly, it highlighted gender and location-based disparities in social media addiction, shedding light on the refined factors influencing this phenomenon. Notably, the research revealed a negative correlation between academic achievement and social media addiction, suggesting a potential hindrance posed by excessive social media usage on educational outcomes.

Moreover, Sumen and Evgin (2021) delved into the multifaceted repercussions of social media addiction on high school students, examining its association with sleep quality and psychological well-being. Their findings indicated a concerning prevalence of social media addiction among high school students, accompanied by adverse effects on sleep efficiency and psychological distress. This highlights the intricate interplay between social media engagement, sleep patterns, and mental health among adolescents, emphasizing the need for comprehensive interventions to address these interconnected issues. Furthermore, Luo et al. (2020) provided insights into the divergent roles of social media in adolescents' academic performance, highlighting the complex dynamics at play. Their research elucidated how both outside-school and inside-school social media behaviors, along with impulsivity traits, collectively shape academic outcomes, emphasizing the refined interplay between online activities and educational pursuits. In light of these findings, Osharive (2015) advocated for a balanced approach to social media usage among students, emphasizing the need for leveraging these platforms for educational purposes while mitigating potential setbacks to academic performance. Similarly, Akhtar (2013) highlighted the detrimental impact of internet addiction on university undergraduates' academic achievement, highlighting the imperative of addressing excessive online engagement to optimize educational outcomes. Overall, these studies collectively highlight the intricate relationship between social media addiction and academic achievement, urging for comprehensive strategies to mitigate its adverse effects and promote healthy digital habits among students.

## II. REVIEW OF RELATED LITERATURE

In today's digital era, social media has become an integral part of the lives of adolescents and young adults, offering unprecedented avenues for communication, entertainment, and information sharing. However, alongside its myriad benefits, concerns have emerged regarding the potentially addictive nature of social media usage and its impact on various aspects of individuals' lives, including academic achievement. Understanding the relationship between social media addiction and academic performance is crucial, as it can inform targeted interventions to support students in maintaining a healthy balance between online engagement and academic pursuits.

Several studies have investigated the intricate interplay between social media addiction and academic achievement, shedding light on the multifaceted dynamics shaping this relationship.

Sumen and Evgin (2021) explored the association between social media addiction, sleep quality, and psychological well-being among high school students. Their findings revealed alarming rates of social media addiction among adolescents, alongside adverse effects on sleep efficiency and psychological distress. However, while addressing important facets of social media addiction, the study did not extensively examine its impact on academic achievement, pointing towards a research gap in this area. Luo et al. (2020) provided insights into the divergent roles of social media in adolescents' academic performance, highlighting the complex interplay between outside-school and inside-school social media behaviors. Despite offering valuable insights, the study focused primarily on behavioral aspects, leaving a gap in understanding the underlying mechanisms driving the relationship between social media addiction and academic achievement. Additionally, Osharive (2015) and Akhtar (2013) highlighted the detrimental impact of social media and internet addiction, respectively, on academic performance among students. However, while contributing to the understanding of digital addiction's implications, these studies primarily focused on university-level students, indicating a need for research encompassing a broader demographic range, including secondary school students.

**Research Gap:** Despite the wealth of research on social media addiction and academic achievement, there remains a notable research gap in several areas. Firstly, there is a need for studies encompassing diverse geographical contexts to provide a comprehensive understanding of the global implications of social media addiction on academic outcomes. Secondly, while existing research has primarily focused on undergraduate and university-level students, there is a paucity of studies examining social media addiction among secondary school students, highlighting the need for targeted investigations in this demographic. Additionally, there is a dearth of research exploring the underlying mechanisms driving the relationship between social media addiction and academic achievement, warranting further inquiry into this complex interplay. Addressing these research gaps is essential for developing effective interventions to support students in navigating the digital setting while maintaining academic success.

## III. NEED AND IMPORTANCE OF THE STUDY

The need to explore the relationship between social media addiction and academic achievement arises from the pervasive influence of digital platforms on the lives of today's youth. As social media becomes increasingly integrated into daily routines, concerns about its addictive potential and its impact on academic performance have grown significantly. Addressing these concerns is essential to understand the implications of excessive social media usage and to develop effective strategies for supporting students in achieving academic success while maintaining healthy digital habits.

Central to the importance of this study is the recognition of the intricate link between academic achievement and overall well-being. Academic success is not solely determined by cognitive abilities but is also influenced by factors such as mental health, social interactions, and lifestyle choices. Excessive engagement with social media can exacerbate stress, anxiety, and sleep disturbances, all of which can detrimentally affect students' academic performance. By examining the relationship between social media addiction and academic achievement, educators and policymakers can identify potential risk factors and implement targeted interventions to support students' holistic well-being.

Furthermore, understanding the impact of social media addiction on academic achievement is crucial for optimizing educational strategies in the digital age. While social media platforms offer unique opportunities for learning and collaboration, excessive use for non-academic purposes may detract from students' focus and attention in the classroom. By elucidating the effects of social media addiction on academic outcomes, educators can develop tailored approaches for integrating technology into the learning environment while minimizing distractions and maximizing engagement.

Policy formulation and implementation also benefit from insights gained through research on social media addiction and academic performance. Clear guidelines and expectations regarding responsible digital citizenship can be established collaboratively by educators, parents, and policymakers. By fostering a supportive environment that promotes healthy digital habits, schools can create conditions conducive to academic success while empowering students to navigate the digital setting responsibly.

Moreover, addressing the research gaps in this area is paramount for advancing our understanding of the complex interplay between online engagement and educational outcomes, particularly among secondary school students. By bridging these gaps, researchers can contribute to a more comprehensive understanding of social media addiction and its implications for academic achievement, thereby informing evidence-based interventions and strategies to support students in achieving their full potential academically and beyond.

## IV. STATEMENT OF THE PROBLEM

The problem selected for the present research is as follows:

## “A Study on Relationship between Social Media Addiction and Academic Achievement of Secondary School Students in Tumkur District”

### V. OBJECTIVES OF THE STUDY

The following are the objectives for the present paper

1. To know the difference in the Academic Achievement of secondary school students with regard to sex.
2. To know the difference in the Academic Achievement of secondary school students with regard to type of school management.
3. To know the difference in the Academic Achievement of secondary school students with regard to social media addiction.
4. To examine the relationship between Social Media Addiction and Academic Achievement of secondary school students.

### VI. RESEARCH HYPOTHESES

The following are the research hypotheses for the present paper:

1. There is no significant difference in the Academic Achievement of secondary school boys and girls.
2. There is no significant difference in the Academic Achievement of secondary school students studied in government, private aided and private unaided schools.
3. There is no significant difference in the Academic Achievement of secondary school students having less, average and more levels of social media addiction.
4. There is no significant relationship between Social Media Addiction and Academic Achievement of secondary school students.

### VII. METHODOLOGY

This study investigates the relationship between social media addiction and the Academic Achievement of secondary school students, considering the potential influence of sex and the type of school management. The main objective is to understand the connection between social media addiction and secondary school students' Academic Achievement, with formulated hypotheses focused on these variables. The SMA (Social Media Addiction) Scale developed by Natasha Saqib and Faseeh Amin (2020) used as the primary tool for assessing students' social media addiction, supplemented by Academic Achievement data obtained from school records. The study consists a sample of 120 participants of IX standard students chosen from government, private aided and unaided secondary schools in Tumkur District. Data analysis involves descriptive statistics such as mean and standard deviation, as well as independent 't' test, ANOVA and coefficients of correlation. The collected data was analyzed by independent 't' test, 'F' test and 'r' test statistics. All the results got with the help of SPSS Package and MS Excel. The level of significance was fixed at 0.05 and 0.01 level of confidence in all the cases.

### VIII. ANALYSIS AND INTERPRETATION OF DATA

**Table-1:** Showing independent 't' test results related to Academic Achievement scores of secondary school boys and girls.

Sex	Sample	Mean scores	Std. Deviation	't' Value	Sig. level	Results
Boys	60	375.750	87.071	0.94	NS	Not Significant
Girls	60	391.350	94.515			

Table Value for 0.05 level is 1.98 (N=120; df=118)

This table examines whether there is a significant difference in the academic achievement of secondary school boys and girls. It compares the mean scores of boys and girls, along with other statistical measures. The table tells us that the difference in academic achievement between boys and girls is not significant. The 't' value of 0.94 is lower than the critical value of 1.98, which means it's not enough to be considered significant. In simpler terms, it suggests that there is not a meaningful difference in academic achievement between boys and girls in this study. The same result was represented in graphical presentation in Fig.No.1.

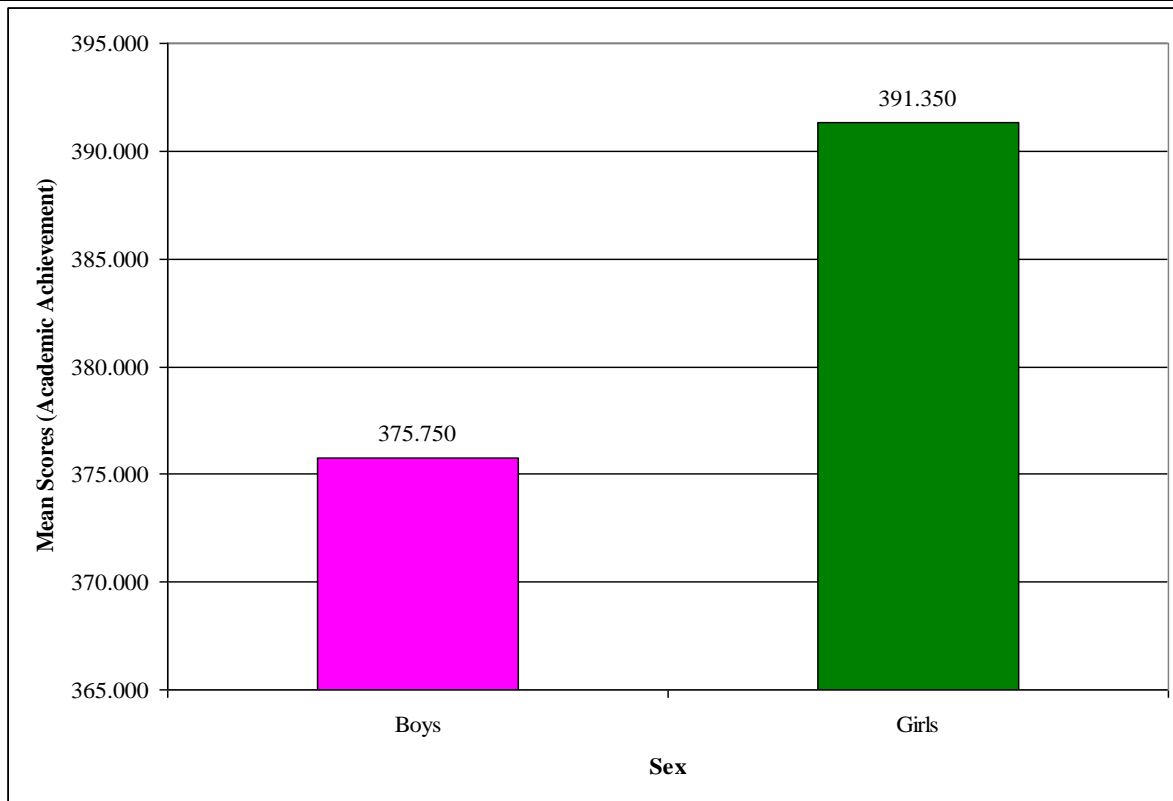


Fig. No.-1: showing the mean scores comparison of Academic Achievement of secondary school boys and girls.

Table-2: Showing One-Way ANOVA results related to Academic Achievement scores of secondary school students studied in government, private aided and private unaided schools.

Source of Variance	Sum of squares	Degree of Freedom	Mean Square	'F' & Sig. Level	Results
Between Groups	217450.350	2	108725.175	16.65**	Sig. at 0.01 level
Within Groups	764215.350	117	6531.755		
Total	981665.700	119			

{ Table Value for 0.01 level is 4.78 (df=117; 2) }

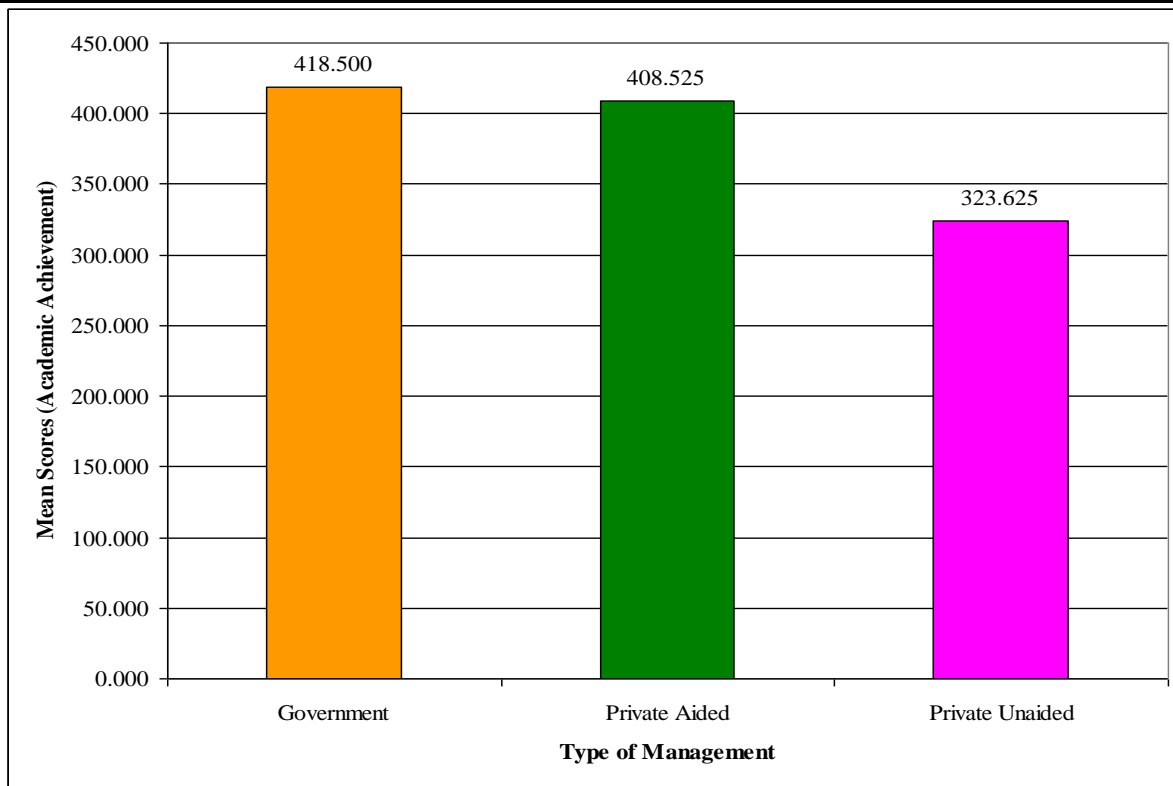
This table investigates whether there is a significant difference in the academic achievement of secondary school students based on the type of school they attend: government, private aided, or private unaided. It compares students across these different types of schools. The table indicates that there is indeed a significant difference in academic achievement between students from different types of schools. The 'F' value of 16.65 shows that this difference is significant at a high level (0.01), meaning it's quite reliable. In simpler terms, it suggests that the type of school a student attends does impact their academic performance.

Table-2(a): Shows Post Hoc Test results related to Academic Achievement of secondary school students due to variation in type of school management.

Type of School Management Groups			Mean Difference
Government	Private Aided	Private Unaided	
418.500	408.525	-	9.975
-	408.525	323.625	84.900*
418.500	-	323.625	94.875*

\*Significant at 0.05 level of confidence

This table helps us understand which specific groups of students have different academic achievement scores based on the type of school they attend. It compares students from government, private aided, and private unaided schools. The asterisk indicates if the difference is significant at 0.05 level of confidence means that differences in the academic achievement between private aided and private unaided schools (MD=84.900) and students from government and private unaided (MD=94.875) groups are significant and reliable at a confidence level of 95%. It suggests that the type of school management does affect students' academic achievement. The students from government schools had higher achievement in academics when compared with students from private aided and private unaided schools respectively. The same result was represented in graphical presentation in Fig.No.2.



**Fig.No. -2:** Showing the mean scores comparison of Academic Achievement of secondary school students studied in government, private aided and private unaided schools.

**Table-3:** Showing One-Way ANOVA results related to Academic Achievement scores of secondary school students having less, average and more addiction of social media.

Source of Variance	Sum of squares	Degree of Freedom	Mean Square	'F' & Sig. Level	Results
Between Groups	78183.565	2	39091.783	5.06**	Sig. at 0.01 level
Within Groups	903482.135	117	7722.070		
Total	981665.700	119			

[Table Value for 0.01 level is 4.78 (df=117; 2)]

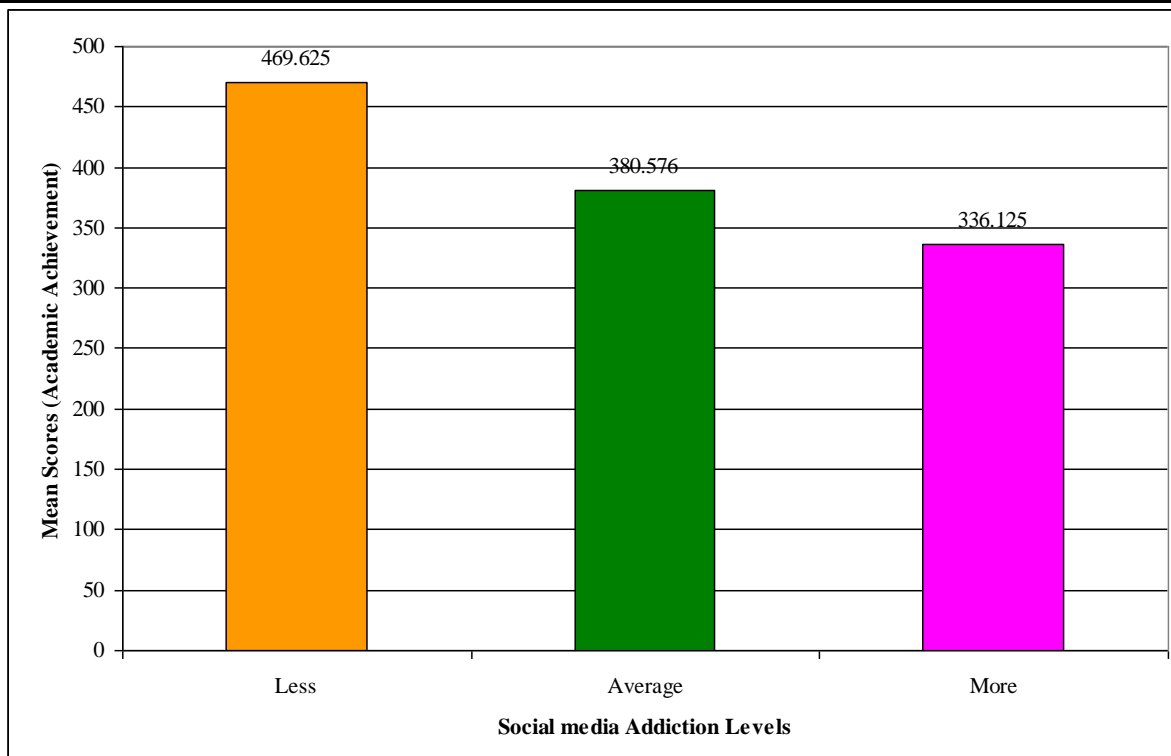
This table examines whether there is a significant difference in the academic achievement of secondary school students based on their levels of social media addiction. It compares students with less, average, and more addiction to social media. The table tells us that there is a significant difference in academic achievement between these groups. The 'F' value of 5.06 shows that this difference is significant at a high level (0.01), meaning it's quite reliable. In simpler terms, it suggests that how much students use social media does impact how well they perform in school.

**Table-3(a):** Shows Post Hoc Test results related to Academic Achievement of secondary school students due to variation in social media addiction.

Social Media Addiction Groups			Mean Difference
Less	Average	More	
469.625	380.576	-	89.048*
-	380.576	336.125	44.451
469.625	-	336.125	133.500*

\*Significant at 0.05 level of confidence

This table-3(a) helps us understand which specific groups of students have different academic achievement scores because of their social media use. It compares students with less, average, and more addiction to social media. There was a significant differences in the academic achievement scores of students having less and average social media addiction (MD=89.048) and students having less and more social media addiction (MD=133.500). These indicate that social media addiction does affect students' academic achievement between less and average levels as well as less and more social media addiction. The students having less addiction of social media (M=469.625) had better achievement in academics when compared to average (M=380.576) and more social media addiction (M=336.125). The same result was represented in graphical presentation in Fig.No.-3.



**Fig. No.3:** Showing the mean scores comparison of Academic Achievement of secondary school students having less, average and more addiction of social media.

**Table-4:** Showing the correlation results related to Social Media Addiction and Academic Achievement of secondary school students.

Variables	Mean Scores	Std. Dev.	No.	df	'r' Value	Results
Academic Achievement	383.550	90.825	120	118	-0.411**	Significant @ 0.01 level
Social Media Addiction	69.975	14.781				

[Table value for 0.01 level is 0.228]

Table 4 provides information about the relationship between social media addiction and academic achievement among secondary school students. It shows the average scores for academic achievement and social media addiction, along with how much these scores vary among the students. The correlation between academic achievement and social media addiction is -0.411, indicating that as social media addiction increases, academic achievement tends to decrease. This negative correlation is significant at a high level (0.01), showing that it is a strong and reliable finding. In simpler terms, spending too much time on social media might affect how well students do in school.

## IX. FINDINGS

1. There was no significant difference in the Academic Achievement of secondary school boys and girls.
2. There was a significant difference in the Academic Achievement of secondary school students studying in government, private aided and private unaided schools ( $F=16.65$ ). The government school students ( $M=418.500$ ) had better achievement in academics when compared to private aided ( $M=408.525$ ) and private unaided school students ( $M=323.625$ ).
3. There was a significant difference in the Academic Achievement of secondary school students having less, average and more social media addiction ( $F=5.06$ ). The students having less addiction of social media ( $M=469.625$ ) had better achievement in academics when compared to average ( $M=380.576$ ) and more social media addiction ( $M=336.125$ ).
4. There was a significant negative relationship between Soft Skills and Academic Achievement of secondary school students ( $r=-0.411$ ).

## X. DISCUSSION OF RESULTS

The findings of this study provide valuable insights into the factors influencing academic achievement among secondary school students. Firstly, the absence of a significant difference in academic achievement between boys and girls aligns with previous research indicating gender parity in educational outcomes. It suggests that factors other than gender may have a greater influence on students' academic success.

Secondly, the significant difference in academic achievement among students from government, private aided, and private unaided schools highlights the importance of school management type in shaping educational outcomes. The superior academic performance of government school students compared to their counterparts in private aided and private unaided schools echoes

findings from Luo et al. (2020), indicating the potential impact of school environment on academic achievement. However, further research is warranted to explore the specific factors contributing to these differences and inform targeted interventions aimed at enhancing academic performance across all types of schools.

The significant difference in academic achievement based on levels of social media addiction highlights the detrimental effects of excessive social media usage on students' academic outcomes. This finding corroborates the research by Sumen and Evgin (2021), emphasizing the need for comprehensive strategies to address social media addiction and promote healthy digital habits among adolescents.

## XI. CONCLUSION AND EDUCATIONAL IMPLICATIONS

In conclusion, the findings of this study highlight the multifaceted factors influencing academic achievement among secondary school students. The absence of gender-based disparities in academic performance suggests a need for inclusive educational practices that cater to the diverse needs of all students. Moreover, the significant differences in academic achievement based on school management type and levels of social media addiction highlight the importance of creating supportive learning environments and implementing targeted interventions to address systemic inequalities and promote positive digital citizenship among students.

From an educational standpoint, these findings highlight the importance of holistic approaches to student development that consider not only academic factors but also socio-environmental influences such as school management type and digital engagement. Educators and policymakers can use these insights to inform evidence-based practices aimed at enhancing academic achievement and fostering the overall well-being of secondary school students. By addressing the underlying factors contributing to disparities in academic outcomes, educational institutions can strive towards creating equitable learning environments that empower all students to reach their full potential.

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