

Social Media and Student's Performances: An Unravelling Complexities among the Learners of Howrah District of West Bengal.

Surajit Ghosh, Research Scholar

Department of Education

Seacom Skills University, Bolpur, Birbhum, West Bengal.

Supervisor : Prof.Dr. Suparna Sanyal Mukherjee, Associate Professor & HoD of Education, DIC of Sociology & Anthropology, Seacom Skills University, Bolpur. Birbhum, West Bengal

Co-Supervisor : Prof. Dr. Mitali Panda, Department of Education, Seacom Skills University, Birbhum, West Bengal

Abstract

The digital revolution has transformed our world, particularly for young people, including school students in Howrah District, West Bengal, India. While concerns around its potential negative impact are widespread, the true influence on academic performance remains a complex and multifaceted issue.

This study delves into this intricate puzzle, surveying 1000 students through a random sampling technique to shed light on their social media habits and their potential influence on academic achievement. Employing rigorous statistical analysis, including ANOVA, the research moves beyond anecdotal evidence, offering a data-driven perspective on this crucial topic.

The study's findings hold valuable lessons not only for students but also for educators and stakeholders in the educational system. It emphasizes the importance of harnessing the potential of social media as a powerful tool for teaching and learning. By thoughtfully integrating these platforms into well-designed pedagogical frameworks, educators can create engaging and interactive learning environments that cater to the needs and preferences of the digital generation. However, such integration necessitates a balanced approach, ensuring that the distractions and potential pitfalls of social media are effectively addressed.

Ultimately, this study serves as a springboard for further exploration and discussion. By acknowledging the complexities of the relationship between social media and student performance, it opens doors for developing effective strategies that utilize the power of technology to enhance learning without compromising academic integrity or student well-being. The path forward lies in navigating this digital landscape with informed awareness, embracing the potential for positive impact while remaining vigilant against potential drawbacks. The future of education hinges on finding this delicate balance, ensuring that technology serves as a catalyst for progress rather than a barrier to student success.

Keywords: Students, Academic Performance, Social Media, Individual Differences, Educational Technology

1. Introduction:

Social media platforms like Facebook, Twitter, and Instagram have become ubiquitous, woven into the fabric of communication for all demographics. This rise has had a profound impact on education, transforming classrooms and challenging traditional teaching methods.

The undeniable speed and reach of social media make it a powerful tool for sharing information. This has ushered in an era of "digital transformation" in education, where educators and administrators strive to create modern, relevant learning environments that prepare students for the demands of the workforce. Smart phones in every pocket bridge the gap between campus life and the vast online world, but also raise concerns about a potential disconnect between learning and leisure activities.

Digital literacy, encompassing both access to technology and the ability to use it effectively for learning, is a major focus for higher education institutions. Social media platforms offer unique spaces for students to connect, collaborate, and share information academically and socially. Their popularity, particularly on mobile devices, makes them valuable tools for communication and engagement.

However, harnessing the power of social media in education demands a nuanced approach. Educators must navigate the potential distractions and negative aspects of these platforms while maximizing their pedagogical value. Integrating social media effectively requires careful planning, clear goals, and strategies that address potential pitfalls like cyber bullying and information overload.

This transformation offers exciting possibilities for personalized learning, collaborative projects, and fostering a global learning community. But it also necessitates constant adaptation and evaluation, ensuring responsible use and safeguarding student well-being. The future of education lies in striking a balance between tradition and innovation, harnessing the power of social media while upholding the core values of critical thinking, ethical discourse, and academic integrity.

The Controversial Role of Social Media in Education:

The integration of social media into the classroom, with its potential to connect, share, and collaborate, has sparked heated debate for years. While concerns about safety and misuse persist, educators can't ignore the growing ubiquity of platforms like Facebook, Twitter, and WhatsApp among students and adults alike.

Proponents argue that social media offers unique benefits. It cultivates community involvement, enabling learners to tap into diverse expertise, share content collaboratively, and build valuable knowledge networks. Researchers like those on Research Gate can expand their reach and draw from broader circles of information.

In the classroom, platforms like Facebook can foster reflective analysis and create vibrant learning communities that transcend physical walls. Studies show positive teacher-student interactions and increased motivation when used responsibly.

For educators, social media serves as a platform for professional identity building. They can engage in discussions, share ideas, and extend their professional network beyond the school walls. Valuable information and insights gleaned from other educators can inform pedagogical approaches and address student challenges.

Furthermore, social media can foster a more approachable and relatable image of educators. Friendly online interactions on platforms like WhatsApp can encourage students to seek guidance and feel more comfortable approaching their teachers.

However, the potential drawbacks cannot be ignored. Concerns revolve around distractions, cyber bullying, privacy breaches, and inappropriate content exposure. Striking a balance between harnessing the benefits and mitigating potential risks is crucial.

The Rise of Social Media in Higher Education:

The landscape of higher education is undergoing a profound shift, driven by the growing influence of social media. More than just a platform for sharing photos and updates, social media is emerging as a powerful tool for knowledge creation, dissemination, and community building, with significant implications for both teachers and students.

This text delves into the multifaceted value of social media within the academic sphere. It goes beyond mere convenience and highlights how social media can enhance the educational experience. Professors are increasingly utilizing platforms like Twitter and Facebook to host live lectures, offer after-hours support, and even facilitate student debates, fostering a more interactive and engaging learning environment. This extends beyond the classroom walls, allowing for continuous connection with students and alumni, strengthening the academic community.

Teacher educators are adeptly leveraging social media as a teaching tool, creating dedicated groups and accounts where students can access valuable information. They share best practices, recommend platforms like Skype and WhatsApp for collaborative learning, and even utilize hashtags to encourage student engagement and track their submissions. This collaborative and interactive approach fosters a deeper understanding of the material and a sense of community among students.

Furthermore, social media empowers professors to reach a wider audience and establish themselves as thought leaders within their field. Platforms like Facebook, Twitter, blogs, and YouTube allow them to disseminate their knowledge, engage in intellectual discourse, and build their professional reputation. This not only benefits the professors themselves but also enriches the academic community as a whole.

The impact of social media extends beyond individual classrooms and professors. For departments like admissions, enrolment management, public relations, and student services, social media becomes the missing piece of the puzzle for engaging their target audience. Universities are actively integrating social media into almost every aspect of campus life, including admissions, campus events, alumni relations, and student support services. This ensures that institutions remain relevant and accessible to potential students, current students, and alumni alike.

However, embracing social media within higher education institutions necessitates responsible integration. Concerns around misuse, distraction, and privacy breaches require careful consideration. Developing clear guidelines, promoting digital literacy, and prioritizing student well-being are crucial for maximizing the benefits and mitigating the risks associated with social media use in academic settings.

In conclusion, social media is not just a fad in higher education; it is a transformative force reshaping teaching, learning, and community building. By harnessing its potential responsibly, universities and educators can cultivate a more engaging, interactive, and connected academic environment for the benefit of both students and faculty. As the text eloquently states, failing to embrace social media in higher education may alienate a significant portion of the potential audience. Embracing this transformative tool holds the key to unlocking a brighter future for academic institutions and the educational landscape as a whole.

Redefining Education with Social Media:

The digital landscape has revolutionized communication, and education is no exception. Social media platforms like Facebook, Twitter, and YouTube are no longer simply entertainment hubs; they are increasingly becoming powerful tools for learning, blurring the lines between classroom walls and the wider world.

This text delves into the intricate tapestry of social media's influence on education, highlighting both its potential and its inherent challenges. The openness offered by these platforms allows for convenient communication between students, fostering peer learning and reaching even beyond the classroom to connect with subject experts. However, this open nature necessitates careful consideration. Privacy concerns and potential misuse demand ongoing communication between educators and students to ensure responsible engagement.

Yet, the risks are outweighed by the academic benefits of such open spaces. Social media creates authentic online environments for vibrant discussions, debates, and knowledge sharing, pushing the boundaries of traditional learning. Platforms like blogs and Twitter facilitate real-time communication outside the classroom, fostering a more dynamic and engaging learning experience.

The text further explores the growing trend of building relationships with students outside the classroom through social media. This offers numerous advantages. Platforms like YouTube can be utilized for viewing and discussing educational content, while forums like WhatsApp and Facebook groups enable collaborative learning projects and creative exchange beyond the constraints of physical classrooms.

But the benefits extend beyond students. Social media allows teachers to learn from their students, glean valuable insights during online interactions and reflective discussions. Additionally, it creates a flexible learning environment where students and teachers can connect anytime, anywhere, transcending limitations of traditional schedules.

Finally, the text emphasizes the unique potential of platforms like Facebook, WhatsApp, YouTube, and Kaizala App to encourage social and creative learning beyond traditional settings. These tools can spark student engagement in innovative ways, expanding the boundaries of conventional education.

In conclusion, social media's impact on education is multifaceted. While risks exist, the potential benefits outweigh them significantly. By embracing this innovative landscape responsibly, educators can foster a more dynamic, engaging, and connected learning experience for both themselves and their students.

2. Review of the Related Literature:

Social media has woven itself into the fabric of young lives, including those of students. While concerns about its impact on academic performance are widespread, the relationship is more nuanced than a simple cause-and-effect equation. This text delves into this intricate connection, exploring both the potential pitfalls and the glimmering potential of social media in education.

As **Junco et al. (2010)** pointed out, social media platforms facilitate collaboration, community building, and sharing, making them highly attractive to the tech-savvy youth. Studies by **Lenhart et al. (2010)** and **Quan-Haase and Young (2010)** highlight the prevalence of social media among students, with a significant portion spending considerable time on platforms like Facebook. Notably, **Pempek et al. (2009)** found that younger students tend to use these platforms more frequently, staying connected with friends and their hometown communities.

However, concerns linger about the potential negative impact of social media on academic performance. Studies by **Choney (2010)**, **San Miguel (2009)**, and **Enriquez (2010)** suggest a correlation between increased social media use and lower grades. **The Nielsen Media Research study (2010)** further indicated that a substantial portion of students' online time is spent on social networking sites, raising concerns about potential distractions and time mismanagement. **The American Educational Research Association (2009)** even reported a link between social media use and lower grades.

Enriquez (2010) and **Kubey et al. (2010)** particularly emphasize the detrimental effects of multitasking involving social media and academic work. Even having social media running in the background, they argue, can

significantly hinder focus and productivity, leading to lower grades. Similarly, **Jacobsen and Forste (2011)** found a negative correlation between multi-media use, including mobile phones, and students' self-reported GPAs.

However, it's important to acknowledge that the picture isn't entirely bleak. Studies by **Ahmed and Qazi (2011)**, **Hanqittai and Hsich (2010)**, and **Pasek and Hanqittai (2009)** found no significant correlation between social media use and academic performance. Similarly, **Martin (2009)** and the **University of New Hampshire (2010)** reported no negative impact on grades due to social media use.

It's crucial to acknowledge that education encompasses more than just grades. Some researchers posit that social media can offer learning opportunities and engagement. **Kist (2008)** highlighted how students use social media for planning and socializing, potentially fostering communication and collaboration skills. Moreover, the rapid rise in social media usage, as evidenced by **marketingcharts.com (2010)**, indicates its undeniable influence on young people's lives.

This complex interplay between social media and academic performance necessitates a nuanced approach. While potential pitfalls like distraction and multitasking deserve attention, educators can harness the positive aspects of social media by integrating it thoughtfully into learning spaces. Fostering responsible digital citizenship and promoting time management skills are crucial. Ultimately, understanding the diverse experiences and needs of students is key to effectively utilizing social media and its educational potential.

Significance of the Study:

The digital landscape has blossomed, and social media reigns supreme as a communication tool for both individuals and students. Platforms like Facebook, Twitter, and WhatsApp offer unprecedented connectivity, facilitating relationship building between teachers and peers. Users craft profiles, share updates, and connect through messages, weaving a digital tapestry of academic life. Within this "information age," social media's popularity, particularly among students, raises questions about its influence on academic performance.

Concerns abound. Parents and educators fret about the potential repercussions of integrating social media into classrooms. Yet, the benefits cannot be ignored. Social media allows teachers to stay connected with students beyond the physical classroom walls, fosters community, and opens avenues for alternative teaching methods. Platforms like Facebook and LinkedIn can serve as repositories for learning materials, fostering collaboration and knowledge sharing. Teachers can even employ hashtags to track student submissions and gauge their understanding.

Despite parental anxieties, students remain drawn to social media, utilizing it daily for various purposes. This complex scenario forms the foundation of a crucial question: How does student engagement with social media impact their academic performance?

For university students, social media transforms free time, offering not just entertainment but also access to valuable educational resources. Understanding this potential dual role necessitates a deep dive into its impact on academic performance; specifically focusing on how utilizing social networks for academic purposes affects student outcomes.

Objectives of the Study:

1. To identify the positive or negative impact of social media on student academic performance.
2. To identify the correlation between the amount of time students spend on social media and their academic achievements.
3. To identify the impact of timing of social media use on students' academic performance.
4. To identify the specific social media platform students use most frequently have a distinct impact on their academic performance.

2.3. Hypothesis:

1. Social media use does not influence students' academic performance.
2. The amount of time students spend on social media does not correlate with their academic performance.
3. The timing of social media use does not affect students' academic performance.
4. The specific social media platform most frequently used by students does not impact their academic performance.

3. Methodology:

This study investigates the relationship between social media use and the academic performance of school students. The researcher employed a survey method, distributing questionnaires to students who then provided their responses. To assess academic performance, the researcher collected both annual marks from Class 9 and half-yearly marks from Class 10. All data was analyzed using statistical software (SPSS) to identify any potential correlations.

Sample:

To ensure a representative sample, the study followed a random selection process, choosing 1000 students from schools within the Howrah District.

Tools:

The success of any research hinges on accurate measurement, which itself relies on precise tools. To ensure this precision, the investigator developed the "Effects of Social Media on Student's Academic Performance Scale (ESMAPS)". This tool's reliability and validity were rigorously established before data collection commenced.

Techniques:

This study utilized statistical techniques to both describe and draw inferences about the data. Specifically, it employed descriptive and differential analyses.

4. Hypothesis Test:

Hypothesis- 01

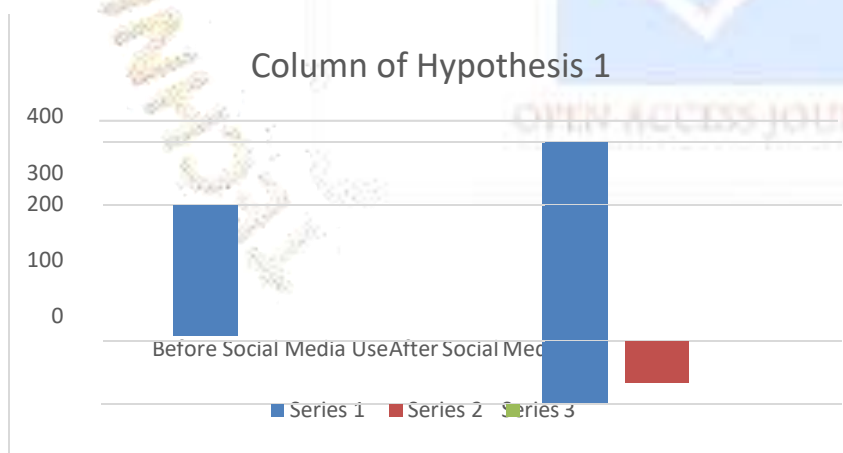
Social media use does not influence students' academic performance.

Table-1 Influence of Social Media Use

Variables	N	Mean of Academic Performance	S.D.	t' Value
Before Social Media Use	1000	233.6	35.6	24.6
After Social Media Use	1000	297.2	73.5	24.6

Table 1 suggests a positive correlation between students' academic performance in their final year of Class 9 (before using social media) and their performance in the first half of Class 10 (after using social media). This statistically significant correlation ($p=0.01$) indicates that social media may influence students' academic performance. However, it's crucial to note that correlation does not imply causation. Further analysis is needed to determine if social media directly improves academic performance or if other factors are involved.

Column Diagram 1



The above pie exhibits the before social media use and after social media use and its manifestation. Mean of academic achievement is showing higher ratio in case of introducing social media. Standard deviation of the mean value too has proven the higher ratio of social media introduction but t' value is maintain equilibrium.

Hypothesis- 02

The amount of time students spend on social media does not correlate with their academic performance.

Table-2

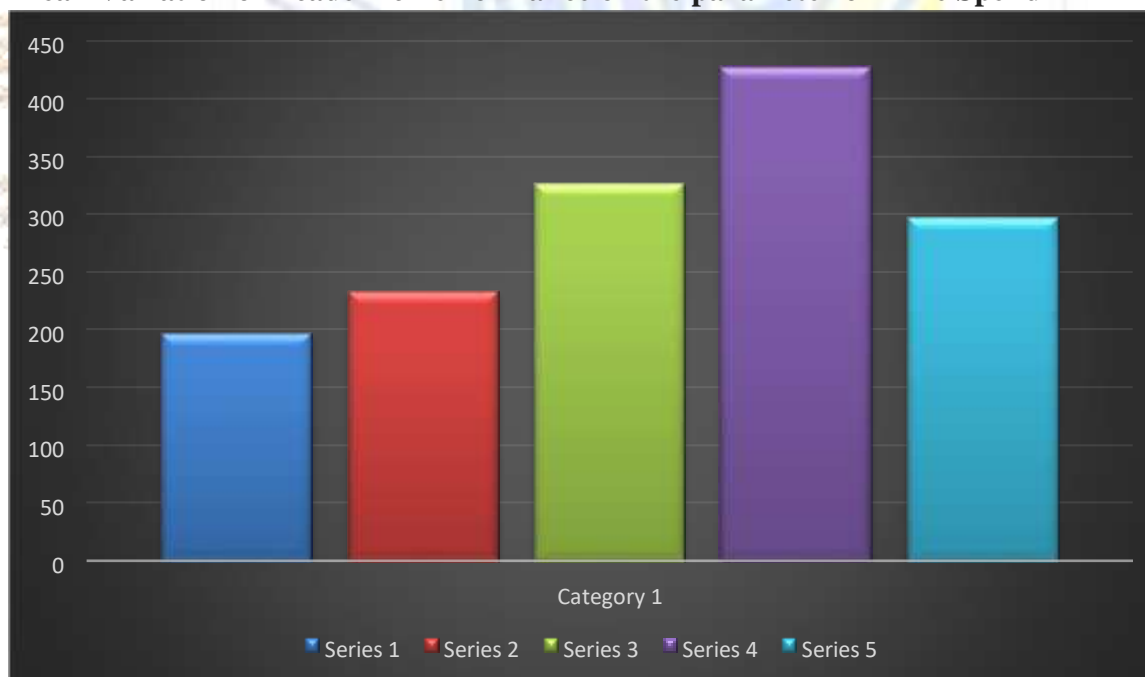
Correlation Between Time Spend on Social Media and Academic Performance

Time Spent	N	Percentage	Mean of Academic Performance	F Value
Less than 1 Hour	123	12.3%	197.19	2080.3
1-2 Hours	265	26.5%	233.27	2080.3
3-4 Hours	498	49.8%	326.14	2080.3
5-6 Hours	114	11.4%	427.26	2080.3
Total	1000	100%	297.2	

Table 2 suggests that students who spent 5-6 hours per day on social media had higher academic performance compared to those who spent less time. However, it's important to note that correlation doesn't imply causation. While this data presents an association, further research is needed to determine if spending more time on social media directly leads to better academic performance or if other factors are at play.

Column Diagram 2

Mean Variation of Academic Performance on the parameter of Time Spend



Hypothesis 2 has been exhibited in the column diagram 2 . Series 4 is showing high value in case of 3-4 hours spending of time for social media. Lower ratio is observing in case of 1-2 hours spending for social media learning and other parameters are maintaining equilibrium.

Hypothesis- 03

The timing of social media use does not affect students' academic performance.

Table-3

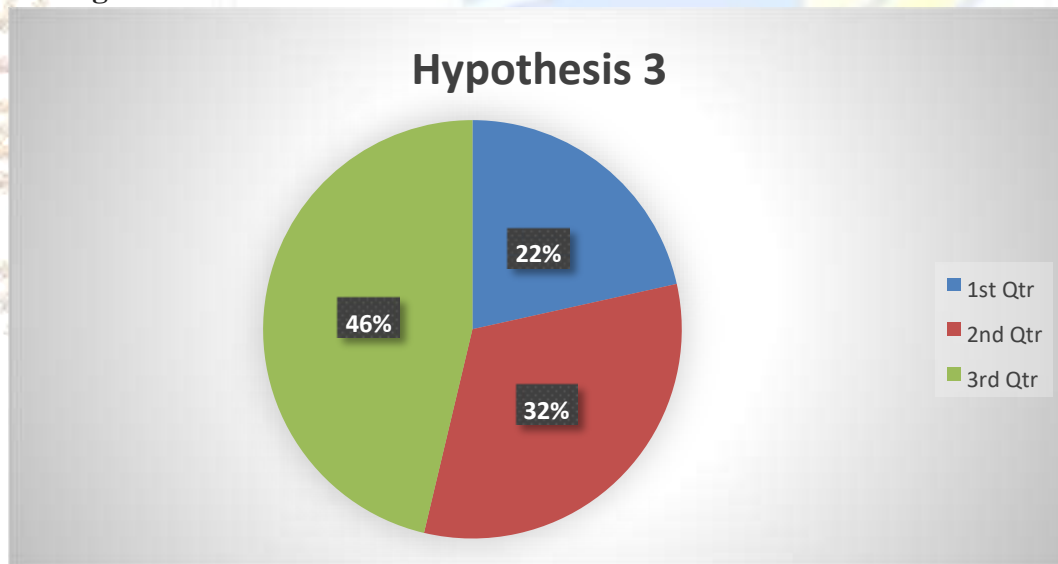
Timing of Social Media Use and Academic Performance

Using Time	N	Percentage	Mean of Academic Performance	F Value
During Free Time	150	15.0%	198.88	816.7
At School	738	73.8%	297.39	816.7
Spare Moment	112	11.2%	427.61	816.7
Total	1000	100%	297.2	

The Table-3 suggests that those who use it during their Whilst at School tend to have higher academic performance compared to others. While the majority (73.8%) use social media at school, 73.8% reported using it during their Whilst at School, suggesting a potential link between this specific usage pattern and better academic performance. Further research is needed to confirm this correlation and explore the underlying mechanisms.

Pie Diagram 1

Timing of Social Media Use and Academic Performance



The above pie is showing the in –depth concurrence of the social media use and its time management for academic performance. High value exhibits 46% the spare time using lower value shows 22% at free time and 32% is denoting medium value when the learners are using social media at school time.

Hypothesis- 04

The specific social media platform most frequently used by students does not impact their academic performance.

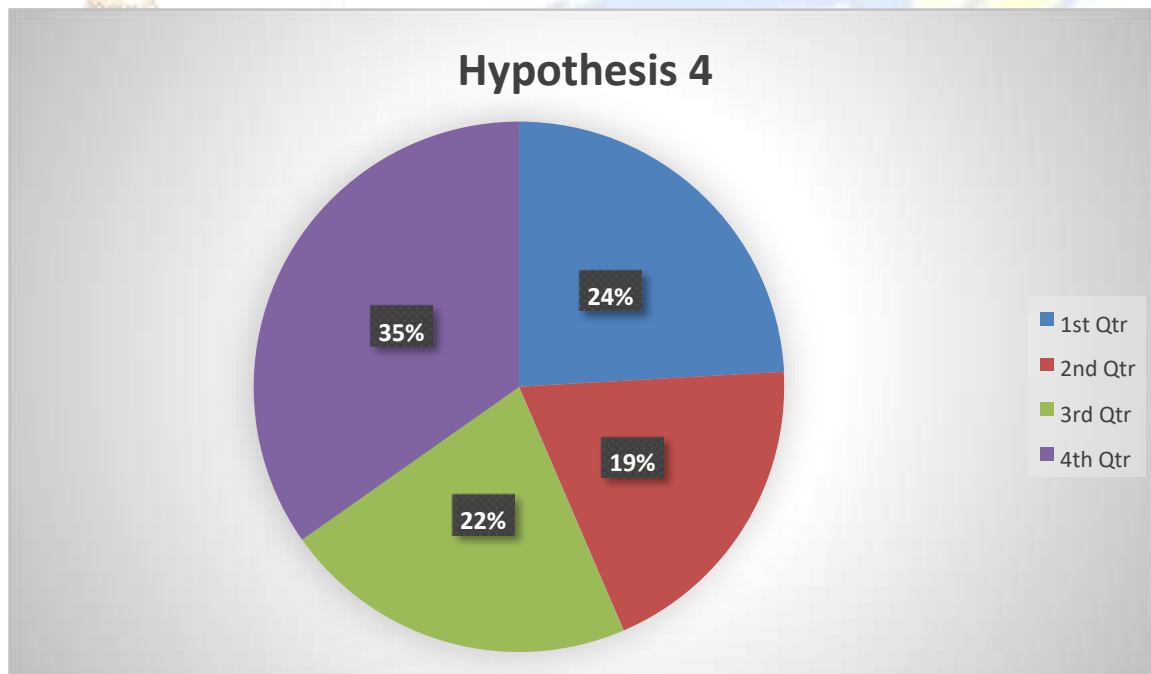
Table-4 Social Media Platforms Use and Academic Performance

Most Used Platforms	N	Percentage	Mean of Academic Performance	F Value
Facebook	441	41.1%	262.71	842.7
Instagram	63	6.3%	211.82	842.7
Twitter	140	14.0%	236.51	842.7
WhatsApp	356	35.6%	378.89	842.7
Total	1000	100%	297.2	

The Table-3 suggests that Facebook to be the most popular choice (41.1%), followed by WhatsApp (35.6%), Twitter (14%), and Instagram (6.3%). Interestingly, the data suggests that students who primarily use WhatsApp tend to exhibit higher academic performance compared to those using other platforms. However, it's important to note that this finding only indicates a potential correlation, and further research is needed to confirm a causal link and understand the underlying mechanisms at play.

Pie Diagram 2

Most Frequently Uses of Social Media Platforms



The above pie is depicting highest value in the parameter of using WhatsApp. Twitter is exposing lowest value and Facebook along with Instagram maintaining equilibrium for the data uses and data base performances and media uses for academic achievements.

5. Conclusion:

While the study aimed to link social media use to academic performance, the findings seem contradictory. Although most students used smartphones and social media, higher performance was associated with both specific timeframes (5-6 hours) and purposes (spare moments, WhatsApp, academic use). However, the study itself doesn't establish causation and requires further research to understand these potentially paradoxical connections. Importantly, it highlighted the positive use of social media for academic chat, suggesting potential benefits when strategically employed.

References:

- Angeliki Coconi, (2013). Setting Up a Classroom for Skype Conferencing, eHow Contributor, www.ehow.com.
- Abaleta, A. B, Centaza, S.M, & Calimlim, M. E. (2004). Impact of Social Networking on the Academic Performance of College Students in Anellano University-(Unpublished Dissertation), 1-19
- Ahmed, I. & Qazi, T. (2011). A look out for academic impacts of social networking sites (SNSs): A student based perspective. African Journal of Business Management, 5(12), 5022-5031.
- Asur, S. & Huberman, B.A. (2010). Predicting the Future with Social Media. Social Computing Lab: HP Labs, Palo Alto, California. 1- 8.
- Becker, A. E., Fay, K. E., Agnew-Blais, J., Khan, A. N., Striegel-Moore, R. H., & Gilman, S. E. (2011). Social network media exposure and adolescent eating pathology in Fiji. The British Journal of Psychiatry, 198, 43-50.
- Boyd, D. (2010). Taken Out of Context: American Teen Sociality in Networked Publics Berkeley, CA: University of California; 2008. Available at: www.danah.org/papers/TakenOutOfContext.pdf.
- Choney, S. (2010). Facebook Use Can Lower Grades by 20 Percent, Study Says. http://www.msnbc.com/id/39038581/ns.technology_and_science-tech_and_gadgets/. Retrieved 14/08/13
- Enriquez, J.G. (2010). Facebook and Other Online Social Networking Sites Can Lower Grades, Study Says. <http://seerpress.com/facebook-and-other-online-social-networking-sites-can-lower-grades-studysays/6935/>. Retrieved 14/08/13
- Englander, F., Terregrosa, R. & Wang, Z. (2010). Internet use among College Student : Tool or Toy? Educational Review. 62(1) 85-96.
- Ferguson, C. J. (2013). In the eye of the beholder: Thin-ideal media affects some, but not most, viewers in a meta-analytic review of body dissatisfaction in women and men. Psychology Of Popular Media Culture, 2, 20-37.

- Fraenkel, J. R. & Wallen, N. E. (2003). *How to Design and Evaluate Research in Education*, 5th ed. Boston:McGraw Hill, 96-97,118-119.
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlation studies. *Psychological Bulletin*, 134, 460-476.
- Hargittai, E. & Hsieh, Y. P. (2010). Predictors and Consequences of Differentiated Practices on Social Network Sites. *Information, Communication & Society*, 13(4), 515- 536.
- Holmstrom, A. J. (2004). The effects of the media on body image: A meta-analysis. *Journal of Broadcasting & Electronic Media*, 48, 196-217.
- Hong, F. Y., S. I. & Hong, D. H. (2012). A Model of the Relationship Between Psychological Characteristics, Mobile Phone Addiction and use of Mobile Phones by Taiwanese University Female Students, *Computers in Human Behaviour*, 28, (6), 2152- 2159.
- Jacobsen, W. C., & Forste, R. (2011). The Wired Generation: Academic and Social Outcomes of Electronic Media Use Among University Students. *Cyber Psychology Behaviour & Social Networking* 18, (5) 275 285.
- Junco, R., Heiberger, G. & Loken, E. (2010). The Effect of Twitter on college students Engagement and Grades, *Journal of Computer Assisted Learning*, 1-14.
- Kaitlin, C. (2010). Social Media Changing Social Interactions. *Student Journal of Media Literacy Education*, Issue 1, Vol. 1. 1- 11.
- Karpinski, A. C. & Duberstein, A. (2009). A Description of Facebook Use and Academic Performance among Undergraduate and Graduate Students. San Diego, California: American National Research Association. 1- 19.
- Khan, U (2009). Facebook student underachieve in exams. *Daily Telegraph*, Retrieved on July, 2013, from <http://www.telegraph.co.uk/educationnews/5145243/Facebook-students-underachieve-in-exams.html>
- Kist, W. (2008). I gave up MySpace for lent: New teachers and social networking sites. *Journal of Adolescent & Adult Literacy*, 52 (3) 245.247.
- Kumekpor, T. K. B. (2002) *Research Methods and Techniques of Social Research*. Accra: Sonlife, 117-118.
- Lenhart, A. (2015). *Teens, social Media & technology overview 2015*. Retrieved from <http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/>
- Levine, M. P., & Murnen, S. K. (2009). “Everybody knows that mass media are/are not [pickone] a cause of eating disorders”: A critical review of evidence for a causal link between media, negative body image, and disordered eating in females. *Journal of Social and Clinical Psychology*, 28, 9-42.
- Lewis, S. (2008). Where young adults intend to get news in five years. *Newspaper Research Journal* 39 (4), 36 – 52.

- Lusk, B. (2010). Digital Natives and Social Media Behaviors: An Overview. *The Prevention Research*, Vol. 17. 3–6.
- Martin, J.L., & Yeung, K., (2006). Persistence of close personal ties over a 12-year period. *Social Networks*; 28, 331–362.
- MehMood, S, & Taswir, T, (2013). The effect of social networking site on the Academic Performance on students in college of applies sciences, Nizwa, Oman. *International Journal of Arts and Commence*. Vol. 2 No. 1 pp 111-123
- Nalwa K, & Anand, A.P. (2003). Internet addiction in Students: A case of concern. *Cyber Psychology Behaviour*, doi:10.1089/109493103322725441.06(6): 653-656.
- Pasek, J. & Hargittai, E. (2009). Facebook and academic performance: Reconciling a media sensation with data. *First Monday*, 14 (4-5). 1- 25.
- Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on facebook. *of Applied Development psychology*, 30(3),227- 238. doi:10.1016/j.appdev.2008.12.010.
- Quan-Haase, A., & Young, A. L. (2010). Uses and gratifications of social media: A comparison of facebook and instant messaging. *Bulletin of Science, Technology & Society*, 30(5),350-361. doi:10.1177/0270467610380009.
- Sanchez-Martinez, M. & Otero, A. (2009). Factors Associated with Cell Phone Use in Adolescents in the Community of Madrid (Spain). *Cyberpsychology, Behaviour*, 12, pp. 131-137.
- Schill, R. (2011). Social Networking Teens More Likely to Drink, Use Drugs, Study Finds. <http://jjie.org/teens-on-facebook-more-likely-drink-or-> Retrieved 16/08/13
- Sivakumar R, (2016). "WhatsApp in Education.", *GLOKALde e-journal of UDEEEWANA*, Volume 2, Number 2, 18-22.
- Sivakumar R, (2015). "Skype in Education.", *Journal of Educational and Psychological Research*, Volume 05, Number 01, 5-10.
- Sivakumar R, (2014). "Google Glass in Education.", *Journal of Cognitive Discourses*, Volume 02, Number 02, 24-27.
- Sivakumar R, (2014). "3G - Mobile Technology in Education .", *Journal of Cognitive Discourses*, Volume 02, Number 01, 49-53.
- Sivakumar R, (2008). "Online Classroom Equipped with ICT .", *Meston Journal of Research in Education*, Volume 07, Number 02, 17-21.
- Sivakumar R, (2007). "Information Technology in Education .", *Journal of Edutrack*, Volume 07, Number 04, 17-19.

Swaroop. (2012). “Why is WhatsApp so pervasive?”
<http://www.swaroopch.com/2012/12/whatsapp/>

Towner, T. & VanHorn, A.(2007). Facebook: Classroom tool for a classroom community?
Presented at the Annual Meeting of the Midwest Political Science Association, Chicago, Illinois
Wesley A. Fryer, (2009). Skype-in-the classroom, www.wtvi.com.

Wang, Q., Chen, W. & Liang, Y. (2011), The Effects of Social media on College Students.
The Alan Shawn Feinstein Graduate School. Providence: Johnson & Wales University.

Watson, J. (2001). How to Determining a sample size: Tipsheet (60) University Park, PA Penn State
Cooperative Extension. Available at: <http://www.extention.psu.edu/evaluation/pdf/Ts60.pdf>.accessed 10, 2012.

