



Impact Of The Use Of Smartphones On Academic Performance Of Students: A Cross-Sectional Study

Sakshi Punir Asst. Professor, Department of PDP, Graphic Era Hill University, Dehradun Uttarakhand India.

Abstract

Concerns concerning the possible effects of smartphones on students' academic performance have been raised due to their ubiquitous use. The purpose of this study is to investigate the connection between smartphone use and academic achievement, highlighting both beneficial and detrimental consequences. The results show a complicated interaction between smartphone use and academic achievement. On the one hand, cell phones offer students immediate access to a wealth of knowledge, facilitating effective research and boosting educational prospects. Additionally, interactive, and interesting learning experiences can be facilitated through instructional software and internet platforms. On the other hand, excessive smartphone use can impair academic performance by causing distractions, diminished focus, and procrastination. Social media, video games, and other non-academic pursuits tend to take up a lot of time, which could result in less time spent studying and worse marks. Students should be encouraged to use skills like time management, digital well-being practices, and self-regulation to lessen the negative consequences. The use of cell phones responsibly must be made more widely known, and educational institutions and governments must create rules that strike a balance between maximizing the educational potential of smartphones and minimizing their negative effects on academic achievement. Overall, there are many ways that smartphone use can affect academic performance, necessitating additional study and coordination efforts from many stakeholders to maximize the educational advantages and minimize any possible disadvantages.

Keywords: Mobile phones, Academics, Students, Education, Learnings.

Introduction:

With the introduction of smartphones, communication, information access, and digital world navigation have all undergone radical change. The lives of students and the rest of us have grown utterly dependent on these small devices. Smartphones have had a significant impact on many facets of contemporary schooling thanks to their amazing capabilities and wide-ranging connectivity. While smartphones have many benefits and learning opportunities, they also present several difficulties and potential drawbacks that may affect students' academic performance.

Smartphones have become effective tools in this digital age, allowing students to quickly and easily access a large amount of information. The availability of the internet,

instructional software, and e-books give students quick access to a variety of information outside the purview of conventional textbooks. Students can conduct internet research on their smartphones, collaborate with peers through virtual platforms, and use interactive learning programs to deepen their understanding. As a result, students have the chance to broaden their intellectual perspectives and encourage self-directed learning.

Additionally, cell phones have transformed connectivity and communication, enabling students to stay in touch with their professors, peers, and educational institutions. Students can ask questions, work on group projects, and get feedback from teachers outside of the classroom using real-time communication technologies including email, messaging applications, and video conferencing tools. In addition to facilitating effective academic exchanges, this improved connection encourages personalized learning experiences that are tailored to the particular wants and needs of individual students.

However, there are worries regarding smartphones' possible detrimental effects on academic performance as a result of students' growing reliance on them. The potential distraction offered by smartphones is one of the main issues. Students who focus on their schoolwork might quickly be drawn away by internet entertainment, instant messaging services, and social networking platforms. Overusing smartphones for non-academic purposes can diminish productivity, lead to poor time management, and make it harder to concentrate on important academic activities. This interruption in focus may make it difficult for children to focus, understand difficult concepts, and remember knowledge, which could have an impact on their general academic performance.

Additionally, prolonged smartphone use can have a negative impact on students' physical and mental health. Smartphone use that involves excessive screen time and sedentary behaviour may lead to a sedentary lifestyle, a lack of physical activity, and potential health problems. Long-term exposure to the blue light emitted by smartphone screens has been linked to sleep disruption, weariness, and decreased cognitive function, all of which have been linked to worsening scholastic performance. Overusing social media on smartphones can also lead to social comparison, feelings of inadequacy, and mental health problems including anxiety and depression, all of which can hinder students' ability to do well in school.

In conclusion, cell phones have had a huge impact on the educational scene and provide enormous possibilities for communication and learning. They make information readily available to pupils, encourage teamwork, and improve connectedness. However, students' academic performance may be hampered by excessive smartphone use. It's important to address the distractions, loss of concentration, and detrimental effects on one's physical and mental health that may result from using a smartphone. It's critical to strike a balance between using smartphones for educational purposes and minimizing any potential downsides. Educational institutions and students can fully utilize smartphones without sacrificing academic quality by promoting responsible smartphone usage, incorporating digital literacy programs, and encouraging self-discipline.

Literature Review:

Students now frequently use cell phones, which has changed how they obtain information, communicate, and interact with their academics in recent years. Researchers have given a lot of thought to how smartphones affect academic achievement. This review of the literature tries to analyse and summarise research that looks at the connection between student academic performance and smartphone usage.

In a study, **Junco, Cotten, and Lunsford (2017)** looked at how smartphone multitasking affected college students' academic performance. According to the study, using a smartphone frequently while multitasking was especially detrimental to academic achievement. When compared to their counterparts who studied with attention, students who often multi-tasked on tests performed worse.

The relationship between college students' cell phone use and academic achievement was examined by **Lepp, Barkley, and Karpinski (2014)**. The study found a link between increased cell phone use and worse academic achievement. The researchers also found that students who spent more time on their smartphones tended to study less and had trouble maintaining concentration while completing their assignments.

In a classroom context, **Lepp, Barkley, and Titsworth (2015)** investigated how smartphone use—specifically texting and Twitter—affected students' ability to learn. According to the study, students who used their phones during class for non-academic activities like texting or using social media sites like Twitter did lower on a later quiz than those who did not use their phones or only used them for schoolwork.

A case study on the effects of cell phones on college students' academic performance was carried out by **Chen (2017)** at the National University of Laos. The study discovered a link between heavy smartphone use and poor academic results. Lower grades and less study time were shown by students who spent more time on their smartphones, especially participating in non-academic activities.

Junco (2012) looked into the connection between academic achievement and Facebook use (accessed largely through cell phones). The results showed a negative association between Facebook usage and GPA, showing that overusing social media sites may be detrimental to students' academic success.

Researchers have looked at how using a smartphone affects students' capacity for sustained attention during academic activities. A study by **Junco and Cotten (2012)** shows that using smartphones in class dramatically reduces concentration and worsens memory. Similar results were found by **Kuznekoff and Titsworth (2013)**, who found that students who used cell phones during lectures did noticeably lower on a post-lecture quiz than those who abstained from using smartphones.

Numerous research has investigated how smartphones affect academic results. According to a study by **Chen (2015)**, smartphone use for educational purposes is positively correlated with academic performance, indicating that, when utilized properly,

smartphones can improve learning. However, other research, such as **Samaha and Hawi (2016)**, discovered that excessive smartphone use for non-academic purposes is linked to worse academic performance because it diverts students' focus from their studies.

Moreover, the use of smartphones can impact students' productivity and time management skills. Smartphones can be useful instruments for managing academic tasks, encouraging organization, and time management, according to **Kukulska-Hulme and Traxler's (2005)** argument.

Numerous research has looked into the effects of smartphone use on pupils' ability to comprehend information and their memory. According to a study by **Rosen et al. (2013)**, frequent smartphone use is linked to poorer cognitive and memory function. However, research by **Shohel and Banks (2010)** found that using a smartphone to access educational resources can enhance how quickly information is processed and how well it is remembered.

In contrast to the unfavourable results, several studies suggested that deliberate smartphone use for educational purposes might enhance academic achievement. **Thorpe and Gaskin's (2015)** research showed that students who used educational apps and resources on their cell phones had better academic results, indicating that how smartphones are used may be an important issue to take into account.

The use of smartphones excessively has also been linked to poor sleep, which can affect academic performance. According to a study by **Cheever et al. (2014)**, students who reported using their smartphones more frequently at bedtime had sleep disruptions, which affected their daytime alertness and academic performance.

Objective:

To find the impact of the use of smartphones on academic performance of students

Methodology:

This study is descriptive in nature in which the data were obtained from the 200 respondents to find the impact of the use of smartphones on academic performance of students. A checklist question was used to analyse and interpret the data. In a checklist question respondents choose "Yes" or "No" for all the questions.

Data Analysis and Interpretations:

Table 1 Impact of the Use of Smartphones on Academic Performance of Students

SL No.	Impact of the Use of Smartphones on Academic Performance of Students	Yes	% Yes	No	% No	Total
1	Use of smartphones tend to study less and maintain less concentration in completing the assignments	167	83.50	33	16.50	200

2	Use of smartphones affects students' ability to learn	178	89.00	22	11.00	200
3	Participation in non- academic activities has reduced	181	90.50	19	9.50	200
4	Using smartphones in class worsens memory of the students	165	82.50	35	17.50	200
5	It can affect students' productivity and time management skills	169	84.50	31	15.50	200
6	Students who can use educational apps and resources on cell phone had better academic results	173	86.50	27	13.50	200
7	Excess use of smartphones has been linked to poor sleep	186	93.00	14	7.00	200
8	Excess use of smartphones can harm the eyesight of the students	189	94.50	11	5.50	200

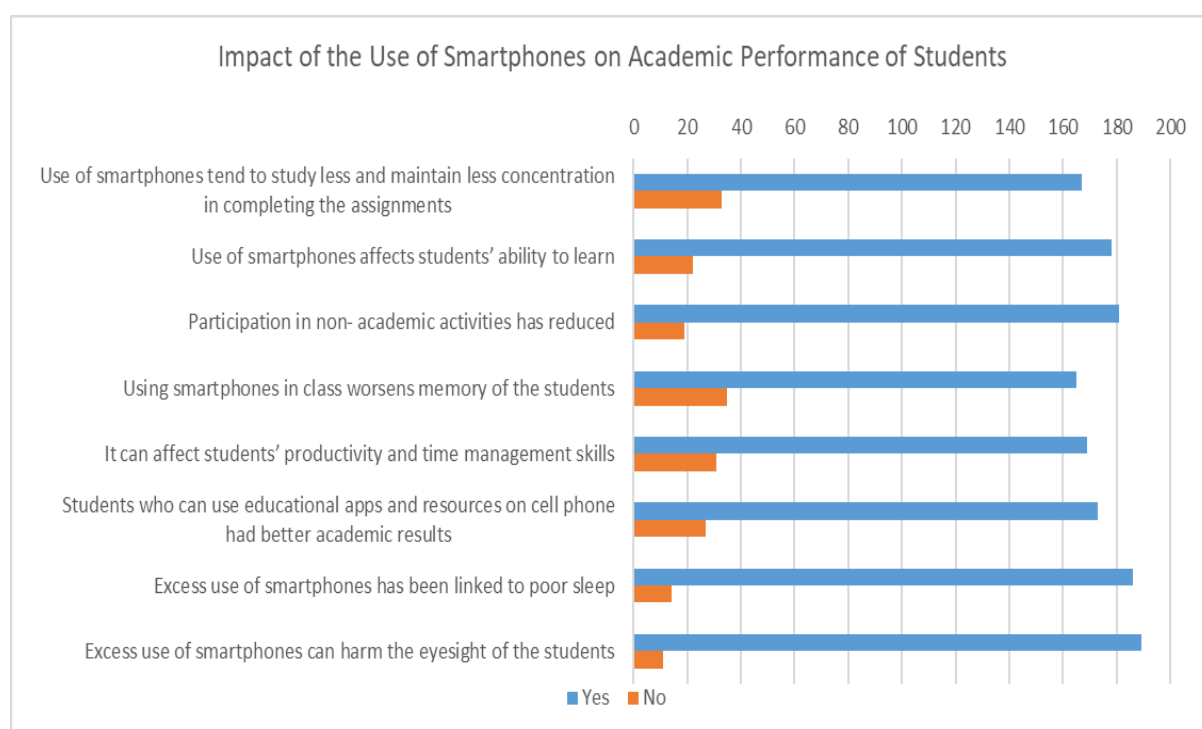


Figure 1 Impact of the Use of Smartphones on Academic Performance of Students

Table 1 and Figure 1 show the impact of the use of smartphones on academic performance of students. It was found that around 94.5% respondents believes that excess use of smartphones can harm the eyesight of the students, Excess use of smartphones has been linked to poor sleep (93.0%), Participation in non- academic activities has reduced (90.5%), Use of smartphones affects students' ability to learn (89.0%), Students who can

use educational apps and resources on cell phone had better academic results (86.5%), It can affect students' productivity and time management skills (84.5%), Use of smartphones tend to study less and maintain less concentration in completing the assignments (83.5%) and Using smartphones in class worsens memory of the students (82.5%).

Conclusion:

In summary, the use of cell phones has significantly impacted pupils' academic performance. While smartphones bring a number of benefits and learning opportunities, they also present a number of difficulties that may negatively impact students' academic success. On the plus side, cell phones give students quick access to a wealth of information, improving their ability to do independent research and study. Students can better understand complicated ideas thanks to the interactive learning experiences provided by educational apps and internet platforms. Smartphones also make it easy for students to collaborate and communicate with one another, which promotes a feeling of community and allows for information exchange. However, it is impossible to overlook the negative effects of smartphone use. The continuous use of cell phones can cause interruptions and reduced concentration while studying. Social media, video games, and other forms of pleasure can tempt students away from their academic obligations, which can result in procrastination and decreased productivity. Furthermore, excessive smartphone use can lead to a sedentary lifestyle and have a negative impact on students' physical and mental health. Students must learn self-control and time management techniques in order to reduce the harmful consequences of smartphone use. Parents and teachers may help students use smartphones appropriately by establishing rules and encouraging a healthy balance between screen time and academic work. In conclusion, cell phones have revolutionized how students access information and learn, yet their influence on academic achievement is complicated. Students can maximize their educational experience and succeed in school by minimizing the possible downsides of smartphones while utilizing their benefits.

References:

- Cho, K., Lee, S., Joo, M. H., & Becker, B. J. (2018). The effects of using mobile devices on student achievement in language learning: A meta-analysis. *Education sciences*, 8(3), 105.
- Felisoni, D. D., & Godoi, A. S. (2018). Cell phone usage and academic performance: An experiment. *Computers & Education*, 117, 175-187.
- Han, S., & Yi, Y. J. (2019). How does the smartphone usage of college students affect academic performance?. *Journal of Computer Assisted Learning*, 35(1), 13-22.
- Ifeanyi, I. P., & Chukwuere, J. E. (2018). The impact of using smartphones on the academic performance of undergraduate students. *Knowledge Management & E-Learning*, 10(3), 290-308.
- Kates, A. W., Wu, H., & Coryn, C. L. (2018). The effects of mobile phone use on academic performance: A meta-analysis. *Computers & Education*, 127, 107-112.

- Khan, A. A., Khalid, A., & Iqbal, R. (2019). Revealing the relationship between smartphone addiction and academic performance of students: Evidences from higher educational Institutes of Pakistan. *Pakistan Administrative Review*, 3(2), 74-83.
- Kibona, L., & Mgaya, G. (2015). Smartphones' effects on academic performance of higher learning students. *Journal of multidisciplinary engineering science and technology*, 2(4), 777-784.
- Kibona, L., & Rugina, J. M. (2015). A review on the impact of smartphones on academic performance of students in higher learning institutions in Tanzania. *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*, 2(4), 673-677.
- Qi, C. (2019). A double-edged sword? Exploring the impact of students' academic usage of mobile devices on technostress and academic performance. *Behaviour & Information Technology*, 38(12), 1337-1354.
- Tingir, S., Cavlazoglu, B., Caliskan, O., Koklu, O., & Intepe-Tingir, S. (2017). Effects of mobile devices on K-12 students' achievement: A meta-analysis. *Journal of Computer Assisted Learning*, 33(4), 355-369.
- Wang, R., Chen, F., Chen, Z., Li, T., Harari, G., Tignor, S., ... & Campbell, A. T. (2014, September). StudentLife: assessing mental health, academic performance and behavioral trends of college students using smartphones. In *Proceedings of the 2014 ACM international joint conference on pervasive and ubiquitous computing* (pp. 3-14).
- Yi, Y. J., You, S., & Bae, B. J. (2016). The influence of smartphones on academic performance: The development of the technology-to-performance chain model. *Library Hi Tech*, 34(3), 480-499.