

Mobile Phone Usage on Student's Academic Performance: A Study of Distraction and Productivity

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DOI - <http://doi.org/10.37502/IJSMR.2025.8710>

Abstract

This study investigated the relationship of smartphone use and academic performance among third-year BEED students. A number of one-hundred thirty students served as the respondents. Descriptive-correlation design was used in this study to describe the level of mobile phone usage with its sub-variables such as the enhancing academic performance, smartphone self-efficacy, distraction level, and the hours mobile phone was used. The same test was run to know the level of the respondent's academic performance. Pearson r correlation and standard deviation was determined. The results showed that the respondents frequently used mobile phones for enhancing their academic performance and demonstrated moderate levels of distraction while using them. In the distraction level, it was found that the respondents were sometimes distracted as they use their mobile phone. There is no significant relationship to academic performance which falls above average level. Mobile phone usage and its sub-variables do not affect the academic performance of the respondents, but it has caused a minimal distraction to some. To strengthen the generalizability of these findings, future research should consider including students from other departments within the institution, which would offer a more comprehensive understanding of mobile phone usage patterns and their implications across the student body. In general, this kind of studies would be helpful in assessing the mobile phone usage of students specifically the minor ones who still need to be guided in their mobile phone use. Thus, this study is also be helpful in determining their level of mobile phone usage and how it affects their academic performance.

Keywords: mobile phone usage, academic performance.

1. Introduction

This research explores the complex relationship between mobile phone usage and academic performance among third-year BEED students at Philippine College Foundation, a private institution in Valencia City, Bukidnon, which has seen a rapid increase in smartphone adoption among its student population in recent years. Mobile phones have become ubiquitous tools in the lives of students, offering both opportunities for enhanced learning and potential distractions (Chen, Q., Yan, Z., & Mei, L., 2016). It is important to acknowledge that mobile phones can affect students' distraction level, self-efficacy, and academic performance (Wang, Y., Shen, C., Novak, D., Pan, X., & Cheong, F., 2020a).

The pervasive integration of mobile phones into daily life has profoundly impacted various facets, including education. While these devices offer undeniable educational advantages, their potential as significant sources of distraction in academic settings remains a critical concern (Jones, 2014; Lepp et al., 2015). Recent research further underscores this dilemma, with studies indicating that a substantial proportion of students engage in non-academic digital activities during class, leading to reduced attention and academic performance (Banyana, et al., 2025). This issue is not confined to specific regions; for instance, investigations in emerging economies highlight how excessive non-academic smartphone use can deter effective learning outcomes (Mohammed, 2024). Moreover, international assessments, such as the PISA 2022 report, consistently demonstrate a negative correlation between classroom distractions from digital devices and student achievement across various countries (OECD, 2024), while specific regional studies, like one from Saudi Arabia, delve into the nuances of smartphone addiction's impact on academic performance (Almaawi & Alshibani, 2025). The challenges posed by digital distractions are further amplified by the evolving landscape of digital learning, where technologies like AI-driven personalized learning and immersive virtual realities are emerging alongside the need to manage student engagement amidst constant digital stimuli (Digital Learning Institute, 2025; Research.com, 2025).

While previous research has explored the general impact of mobile phones on academic performance (e.g., Lepp, A., Barkley, J. E., & Karpinski, A. C., 2015), this study seeks to provide a nuanced understanding of how these devices influence student outcomes within a specific educational context, focusing on the BEED student population and recognizing the unique demands and challenges of this field of study. Specifically, this research addresses the gap in understanding how mobile phone usage patterns, including aspects like enhancing academic performance, smartphone self-efficacy, distraction levels, and usage duration, relate to the academic performance of future educators. This complex interplay of digital tools, student behavior, and academic outcomes necessitates further investigation, particularly within the local context of Philippine College Foundation, to inform effective pedagogical strategies.

2. Methodology

This chapter details the methodology used in the study examining the relationship between mobile phone usage and academic performance of third-year Bachelor in Elementary Education (BEED) students at Philippine College Foundation, Valencia City, Bukidnon. A descriptive-correlational research design was employed, using mean, standard deviation, and percentage analyses to describe mobile phone usage and academic performance, and to measure the relationship between them. It is crucial to emphasize that while this design is effective for identifying associations, it does not allow for the establishment of cause-and-effect relationships between mobile phone usage and academic performance. The study used a total enumeration of third-year BEED students enrolled in the second semester of the 2023-2024 academic year. An adopted survey questionnaire from McGill et al. (2009), D' Ambra et al. (2013), and Soo Yang et al. (2013) was used to assess mobile phone usage, smartphone self-efficacy, distraction, and academic performance (measured by GWA). The questionnaire, consisting of Likert scale items and a section for GWA, demonstrated strong reliability, with Cronbach's alpha coefficients ranging from 0.85 to 0.92 for the different scales. A pilot test with Criminology students yielded a Cronbach's alpha of 0.897. Following ethical procedures, including securing permission and informed consent, the researchers administered the questionnaire, collected the data, and maintained respondent confidentiality. Data analysis

involved descriptive statistics and Pearson's correlation coefficient to examine relationships between mobile phone usage and academic performance.

While this descriptive-correlational design allowed for the identification of relationships between variables, it inherently limits the ability to infer causality. That is, observed correlations do not imply that mobile phone usage directly causes changes in academic performance, or vice-versa. The relationship is likely influenced by various other factors that were not directly measured or controlled for in this study. Potential confounding factors that could influence both mobile phone use and academic performance include, but are not limited to: prior academic achievement (students' pre-existing academic standing), socioeconomic status (which may impact access to technology and learning resources), access to other learning technologies (e.g., computers, reliable internet), individual differences in self-regulation and discipline, motivation and engagement in their BEED studies, and the specific learning environment (e.g., home vs. school, presence of parental supervision). Future research employing experimental or longitudinal designs, or studies that statistically control for these potential confounders, would be beneficial to further disentangle these complex relationships.

3. Results and Discussion

Table 1: Level of Students' Mobile Phone Usage in terms of Hours Title

	Mean	Standard deviation	Description	Qualitative Interpretation
Total	2.78	1.036	Often	Frequent mobile phone use

Legend:

Scale	Range	Description	Qualitative Interpretation
4	7 hours or more	Always	High mobile phone dependency
3	5-6 hours	Ofte	Frequent mobile phone use
2	3-4 hours	Sometimes	Moderate mobile phone use
1	1-2 hours	Rarely	Occasional mobile phone use

Table 1 shows the level of mobile phone usage of students in terms of hours. Based on the table presented the students' mobile phone usage varies, with a standard deviation of 1.036 and a mean of 2.78 hours. "Often" users (five to six hours daily) exhibit a high reliance on mobile phones, potentially impacting concentration and productivity due to distractions. While moderate use can be beneficial for educational communication and access to resources, the observed variation in usage necessitates understanding the specific causes of both positive and negative impacts. Research suggests that students use phones for note-taking (Wyk & Ryneveld, 2018), but also acknowledges the potential negative impact on academic performance. Furthermore, students' engagement in mobile games and access to harmful sites (Jones, 2014) contributes to the concern regarding non-academic mobile phone use.

Table 2: Level of Students' Mobile Phone Usage in terms of Enhancing Academic Performance

Descriptive Statistics	Mean	Standard Deviation	Qualitative Description	Qualitative Interpretation
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I find a smartphone useful in my studies.	4.18	0.840	Often	Frequent phone use	mobile
I can quickly show my projects or reports through my smartphone.	4.03	0.787	Often	Frequent phone use	mobile
I find my smartphone useful in organizing my tasks and schedule.	3.92	0.937	Often	Frequent phone use	mobile
I can finish given tasks efficiently with my smartphone.	3.88	0.826	Often	Frequent phone use	mobile
I use my smartphone to study more efficiently.	3.85	0.811	Often	Frequent phone use	mobile
I look up in the dictionary with the use of my smartphone.	3.85	0.949	Often	Frequent phone use	mobile
I use my smartphone to increase my coursework productivity.	3.78	0.828	Often	Frequent phone use	mobile
I use my smartphone to improve my performance in studying.	3.75	0.810	Often	Frequent phone use	mobile
I use my smartphone to enhance my study effectiveness.	3.72	0.788	Often	Frequent phone use	mobile
I can focus more on discussions with my smartphone.	3.14	0.954	Sometimes	Moderate phone use	mobile
Overall Mean	3.81	0.575	Often	Frequent phone use	mobile

Legend:

Scale	Range	Description	Qualitative Interpretation
5	4.51- 5.00	Always	High dependency on mobile phones
4	3.51- 4.50	Often	Frequent mobile phone use
3	2.51- 3.50	Sometimes	Moderate mobile phone use
2	1.51- 2.50	Rarely	Occasional mobile phone use
1	1.00- 1.50	Never	Minimal or no mobile phone use

Table 2 shows that students frequently ("Often," mean = 3.81) use mobile phones to enhance academic performance, particularly for task completion, scheduling, and studying. This aligns with findings from Murphy et al. (2018) and Wang et al. (2020), who recognized the positive impact of educational technology on learning outcomes. The highest-rated indicator, "I find a

smartphone useful in my studies" (mean = 4.18), underscores this perception. Students utilize smartphones for various academic activities, including accessing materials, searching for programs, reading e-books, and conducting research (Ifeanyi et al. 2018). However, the lowest-rated indicator, "Focus on discussion with smartphone" (mean = 3.14), suggests moderate difficulty maintaining focus during discussions. This potential distraction is supported by Samuel and David (2016), who found that nearly 50% of students reported decreased focus and lower GPA due to phone use during lectures, often related to social media, texting, and calls. While smartphones are valuable tools for information access, organization, and productivity, challenges remain in maintaining focus during collaborative settings.

Table 3: Level of Students' Mobile Phone Usage in terms of Self-efficacy

Indicator	Mean	Standard deviation	Description	Qualitative Interpretation
I send messages via Facebook to friends about classes with my smartphone.	4.35	0.895	Often	Frequent mobile phone use
I currently search for information with my smartphone.	4.32	0.799	Often	Frequent mobile phone use
I send text messages to friends about classes with my smartphone.	4.15	0.997	Often	Frequent mobile phone use
I make phone calls to friends about classes with my smartphone.	4.10	1.010	Often	Frequent mobile phone use
I can contact my instructor with my smartphone.	4.03	0.956	Often	Frequent mobile phone use
I currently work on assignments and presentations with my smartphone.	3.99	0.928	Often	Frequent mobile phone use
I email friends about classes with my smartphone.	3.97	1.134	Often	Frequent mobile phone use
I currently navigate course websites and read course material with my smartphone.	3.82	0.833	Often	Frequent mobile phone use
I currently register for courses with my smartphone.	3.58	1.091	Often	Frequent mobile phone use
I currently take tests with my smartphone.	3.24	1.084	Sometimes	Moderate mobile phone use
Overall Mean	3.95	0.646	Often	Frequent mobile phone use

Legend:

Scale	Range	Description	Qualitative Interpretation
5	4.51- 5.00	Always	High dependency on mobile phones
4	3.51-4.50	Often	Frequent mobile phone use
3	2.51- 3.50	Sometimes	Moderate mobile phone use
2	1.51- 2.50	Rarely	Occasional mobile phone use
1	1.00- 1.50	Never	Minimal or no mobile phone use

Table 3 shows that students frequently (mean = 3.95) use mobile phones to enhance academic self-efficacy, which refers to their belief in effectively using smartphones in mobile learning. This aligns with Joshi et al. (2022), who noted students' use of phones for self-regulated activities like time management and organization. The most popular activity is messaging classmates via Facebook (mean = 4.35), followed closely by searching for information online (mean = 4.32). However, Sundari (2015) notes that international studies link frequent mobile phone use, particularly social networking and texting, to negative academic outcomes. Conversely, taking tests on mobile phones has the lowest mean (3.24), likely due to logistical constraints, institutional rules, or platform compatibility, and a preference for promoting critical thinking over reliance on technology for answers (George et al., 2024). While students use mobile phones for information seeking and class communication, formal tasks like course registration and exams are less common. This highlights the potential for institutions to improve mobile integration into academic workflows by creating mobile-friendly interfaces for assignments, course navigation, and testing.

Table 4: Level of Students' Mobile Phone Usage in terms of Distraction

Indicator	Mean	Standard Deviation	Description	Qualitative Interpretation
I constantly check my smartphone so as not to miss conversations with other people on Facebook even when I'm in class.	3.62	1.058	Often	Frequent mobile phone use
I have been using my smartphone for a longer period.	3.49	1.129	Sometimes	Moderate mobile phone use
I feel disturbing pain in some parts of my body while using my smartphone.	3.28	1.162	Sometimes	Moderate mobile phone use
I miss planned work due to smartphone use.	3.20	1.088	Sometimes	Moderate mobile phone use
I frequently receive comments that I use my smartphone too much.	3.12	1.218	Sometimes	Moderate mobile phone use
I have a hard time concentrating in class or while doing assignments due to smartphone use.	3.09	1.074	Sometimes	Moderate mobile phone use
I feel impatient and restless when I am not holding my smartphone.	2.90	1.225	Sometimes	Moderate mobile phone use

I have my smartphone in my mind even when I am not using it.	2.75	1.203	Sometimes	Moderate mobile phone use
I would not be able to stand not having a smartphone.	2.72	1.181	Sometimes	Moderate mobile phone use
I will never give up using my smartphone even if my grades are greatly affected by it.	2.40	1.192	Rarely	Occasional mobile phone use
Overall Mean	3.06	0.772	Sometimes	Moderate mobile phone use

Legend:

Scale	Range	Description	Qualitative Interpretation
5	4.51- 5.00	Always	High dependency on mobile phones
4	3.51-4.50	Often	Frequent mobile phone use
3	2.51- 3.50	Sometimes	Moderate mobile phone use
2	1.51- 2.50	Rarely	Occasional mobile phone use
1	1.00- 1.50	Never	Minimal or no mobile phone use

Table 4 shows moderate mobile phone use among students (overall mean = 3.06), with standard deviations ranging from 1.058 to 1.218, indicating some level of dependency and distraction. This aligns with Sundari (2015), who found that mobile phone use during class and in libraries leads to distractions and lower grades, and Kates and Coryn (2018), who linked mobile phone use to significant student distraction and negative academic impacts. The highest mean (3.62) was for "constantly checking Facebook in class," highlighting frequent mobile phone use as a major distraction, a finding echoed by Samuel and David (2016), who reported that half of their respondents acknowledged phone use as a lecture distraction contributing to lower GPAs. "Using smartphones for extended periods" had the second-highest mean (3.49), indicating a slight addiction, Cha Seo (2018) linked to negative psychological well-being in young adults. While students rarely completely disregard the impact on their academic achievement (lowest mean = 2.40), suggesting some control, poor time management and lack of self-discipline are noted (Troll, 2019). The data also indicates a moderate correlation between long-term smartphone use and physical discomfort, affecting physical health, productivity, and cognitive focus. Additionally, moderate levels of restlessness without a phone, preoccupation with the device even when not in use, and an inability to function without it suggest emotional reliance and dependence.

This finding, indicating a moderate correlation between long-term smartphone use and physical discomfort (affecting physical health, productivity, and cognitive focus), aligns with a growing body of literature on the physical health implications of excessive screen time, such as repetitive strain injuries, eye strain, and poor posture (Nexus Health Systems, n.d.; PMC, n.d.; Alkamees et al., 2024). Similarly, the moderate levels of restlessness without a phone, preoccupation with the device even when not in use, and an inability to function without it suggest an emotional reliance and potential for nomophobia (no-mobile-phone phobia), a phenomenon increasingly recognized in psychological literature focusing on digital well-being (Panda et al., 2025; Mohammad & Sreenivas, 2025; Sethi et al., 2023). These aspects highlight the broader implications of mobile phone dependency beyond academic performance, touching

upon students' overall well-being and requiring a holistic approach to address responsible device use (Wang et al., 2025; Choi et al., 2025; Al-Saggaf & Singh, 2025). Therefore, interventions related to mobile phone use should not only focus on academic outcomes but also consider the physical and psychological health of students.

Table 5: Summary of Mobile Phone Usage

Descriptive Statistics	Mean	Standard deviation	Qualitative Description	Qualitative Interpretation
Hours	2.78	1.036	Often	High dependency on mobile phones
Enhancing Academic Performance	3.81	0.575	Often	Frequent mobile phone use
Smartphone Self-Efficacy	3.95	0.646	Often	Frequent mobile phone use
Distraction	3.06	0.772	Sometimes	Moderate mobile phone use
Overall mean	3.40	0.520	Sometimes	Moderate mobile phone use

Table 5 indicates that the overall mean score of 3.40 ("Sometimes") across all components of mobile phone usage suggests moderate use, balancing schoolwork and leisure. This aligns with Felisoni's (2017) concept of cell phone use multitasking, where students switch between phones and academic tasks. Mobile phone self-efficacy (mean = 3.95, "Often") reflects students' confidence in using phones for various tasks, including self-regulated learning activities like time management and communication (Felisoni, 2017). The mean score of 3.81 ("Often") for improving academic performance through mobile use indicates regular and beneficial usage, supporting academic activities, such as accessing materials and conducting research (Ifeanyi et al. 2018). While mobile phone-related distraction is moderate (mean = 3.06, "Sometimes"), it requires attention to mitigate the negative effects of nomophobia. Finally, the mean score of 2.78 ("Often") for hours used indicates high reliance on mobile phones, which Yuan et al. (2023) link to impaired time management when phone overuse is unconscious. While mobile phones offer valuable tools for students, a balanced approach is essential to maximize benefits and minimize distractions.

Table 6: Level of Students' Academic Performance

General Average	Weighted Frequency	Percent	Qualitative Description
1.0-1.25	15	11.54	Excellent
1.50-1.75	115	88.46	Very Good
2.0-2.25	0	0	Satisfactory

2.50-2.75	0	0	Poor
3.0-5.0	0	0	Failed
Total	130	100	
	Mean	1.62	Very Good

Table 6 reveals that the majority of respondents (88.46%, n=115) achieved "Very Good" academic performance, while a smaller portion (11.54%, n=15) had "Excellent" performance. This indicates that most students-maintained GPAs between 1.50 and 1.75, exceeding expectations for School of Education students. This suggests that students are generally able to balance mobile phone use for both academic and leisure activities without negatively impacting their academic performance. Hossain and Hussain (2019) suggest that students can regulate their technology use to minimize stress and improve academic outcomes. The mean GPA of 1.62 which is very good and the low standard deviation of 0.122 further demonstrate consistent and above-average performance. This resilience and ability to manage technology and academics are evident despite the previously noted moderate levels of mobile phone-related distraction. This is supported by Chen et al. (2025) who found that practical and convenient mobile learning positively impacts academic performance, suggesting that teaching mobile learning strategies could further enhance student achievement by focusing on educational uses rather than distractions.

Table 7: Test for a significant relationship between mobile phone usage and academic performance

Variables		Academic Performance		Interpretation
		Pearson r	p-value	
mobile	phone usage	-0.053	0.554 ^{ns}	No significant relationship

Note: ** significant at 0.05 alpha level

n.s. not significant at 0.05 level

Table 7 shows no significant relationship between mobile phone usage and the academic performance of third-year BEED students ($p > 0.05$), supporting that it fails to reject the null hypothesis. This suggests that students who responsibly use mobile devices for learning, accessibility, and engagement should not be assumed to have poor academic performance. They demonstrated an ability to balance mobile phone use with academic responsibilities. While some studies, like Lepp et al. (2015), Dietz and Hench (2014), and Jackson et al. (2014), have linked cell phone use and increased classroom technology to lower grades, reduced engagement, and decreased recall, other research, such as Murphy et al. (2018), Wang et al. (2020), Liu et al. (2019), and Chen et al. (2025) has shown that technology, including mobile learning, can improve learning outcomes and academic success, especially when students are trained in its effective use. The current findings suggest that the negative impacts of mobile phone use on academic performance may not be universally applicable, and that responsible use can coexist with academic success.

5. Conclusion

In conclusion, the study reveals that third-year BEED students at the Philippine College Foundation engage with mobile phones daily for a significant duration. This engagement

encompasses both academic and personal use, with students perceiving mobile phones as valuable tools for learning and productivity. Specifically, students report frequent use of mobile phones to enhance their academic performance and demonstrate high levels of smartphone self-efficacy. While mobile phones present both opportunities and challenges for students, serving as valuable tools alongside being a source of distraction, the study indicates that this distraction is generally experienced at a moderate level, occurring sometimes during mobile phone use. This underscores the importance of addressing potential distractions to optimize their use for academic purposes.

The study also concludes that the third-year BEED students at the Philippine College Foundation demonstrate an excellent level of academic performance. This high level of performance appears to be facilitated by the students' effective time management strategies, which allow them to successfully balance mobile phone usage with their academic responsibilities. This achievement is likely supported by their development of effective time management skills, enabling them to integrate mobile phone use without negatively impacting their academic outcomes.

The correlation analysis revealed no significant relationship between mobile phone usage and the academic performance of the students. This implies that mobile phone usage, as measured in this study, does not significantly affect students' academic performance. Future educators may exhibit different mobile phone usage patterns compared to students in other disciplines. Their training likely emphasizes effective classroom management strategies and the responsible use of technology in educational settings, which might translate to more balanced personal mobile phone habits.

In conclusion, the study indicates that while BEED students frequently use mobile phones for academic purposes and exhibit self-efficacy in their use, mobile phone usage did not show a significant correlation with their academic performance. It also shows that students get distracted sometimes while using their mobile phones. Further research could explore the specific ways students use mobile phones, the context of usage, and factors that may mediate the relationship between mobile phone use and academic outcomes. Future research could use a longitudinal design to examine the causal relationship between mobile phone usage patterns and changes in academic performance over time

Recommendations

Based on the findings of this study and the observed patterns of mobile phone use among BEED students, the following recommendations are proposed:

- For Educators: It is recommended that educators integrate mobile learning strategies into their curricula that leverage the enhancing aspects of smartphones for academic tasks. This include encouraging the use of educational apps, online research tools, and digital organizational aids. Simultaneously, clear guidelines for responsible in-class mobile phone use should be established and communicated to minimize distractions, fostering an environment where technology supports, rather than hinders, learning.
- For Administrators: Institutional administrators should consider developing comprehensive policies regarding mobile phone use that balance academic utility with the mitigation of potential distractions. Implementing digital literacy programs or workshops focused on effective time management and self-regulation skills related to

mobile device use could empower students to make informed choices about their technology habits and cultivate healthy digital well-being.

- For Students: Students are encouraged to be mindful of their mobile phone usage patterns, particularly during academic activities, and actively practice self-regulation to minimize distractions. Exploring and utilizing mobile applications that specifically support academic performance, such as note-taking apps, planners, or research tools, can enhance productivity. Awareness of the potential physical and psychological impacts of excessive mobile phone use is also crucial for overall well-being.
- For Future Research: Future studies should aim for a broader scope by including students from various departments to enhance the generalizability of findings and provide a wider institutional perspective. Employing longitudinal designs would be beneficial to examine the causal relationship between mobile phone usage patterns and changes in academic performance over time. Further research could also delve into the specific contexts and types of mobile phone use that are most beneficial or detrimental to academic outcomes, and investigate the effectiveness of various interventions aimed at promoting responsible mobile phone use among students. Additionally, exploring specific mediating factors such as prior academic achievement, socioeconomic status, and individual learning styles would provide a more nuanced understanding of the complex interplay between mobile phone use and academic success.

Acknowledgements

First of all, the researchers would like to thank the Almighty God for His enduring grace, guidance, and protection that He has bestowed to them during this research study.

We also would like to express our sincerest gratitude to our research adviser, Mr. Jerson Sarucam, for his continuous support, patience, motivation, and immense knowledge in our research. His knowledge and helpful feedback were important in shaping our research and improving our work.

Appreciation is also due to our instructor, Dr. Edgar Paña, for his encouragement and insightful comments. His motivation inspired us to strive for excellence, and the knowledge he shared greatly contributed to our success.

We sincerely thank the panelists, Mr. Eric Heretape, Mrs. Elena Ferma, and Mrs. Ethel Jane Losdoc, who took the time to review our research. Their thoughtful questions and suggestions gave us new ideas and helped us improve our work.

Our gratitude also to the respondents who participated in answering our questionnaires. Your contributions were essential for the success of this study and enabled us to gather the necessary data.

We also would like to extend out heartfelt gratitude to our statistician, Dr. Sergev Roy Moreno, for his help with the data analysis. His expertise made it easier for us to understand the numbers and draw important conclusions.

To our parents, who have continuously supported us financially to accomplish this study and for their guidance, encouragement and inspiration to us throughout our lives, a very special thank you for your parental presence and constant guidance.

We also appreciate everyone behind the scenes who helped us complete this study through technical help and moral encouragement.

References

- 1) Abdelaziz, E. Y., Abdelwahab, H., El-Sayed, T. A., El-Hussain, M. A., Abdalla, I., Al-Azhar, M., & Osman, M. A. (2025). Impact of smartphone addiction on health status, mental well-being, and sleep quality among medical students in Sudan: A cross-sectional study. *BMC Medical Education*, 25(1), 1-10. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11687160/>
- 2) Alkhamees, A. A., Alkhamees, A. O., Aldosari, S. S., Alahmari, A., Alfarraj, M. A., Alkhamis, A. M., ... & Alhussain, M. (2024). Smartphone Addiction, Screen Time, and Physical Activity of Different Academic Majors and Study Levels in University Students. *International Journal of Environmental Research and Public Health*, 22(2), 237. <https://www.mdpi.com/1660-4601/22/2/237>
- 3) Almaawi, A., & Alshibani, A. (2025, January 20). The Impact of Smartphone Usage on Academic Performance Among Students at King Abdulaziz University, Saudi Arabia: A Subgroup Analysis Based on Year of Study and Field of Specialization. ResearchGate. Retrieved from https://www.researchgate.net/publication/388207271_The_Impact_of_Smartphone_Usage_on_Academic_Performance_Among_Students_at_King_Abdulaziz_University_Saudi_Arabia_A_Subgroup_Analysis_Based_on_Year_of_Study_and_Field_of_Specialization
- 4) Al-Saggaf, Y., & Singh, J. K. (2025). Exploring the Negative Impact of Smartphone Usage on Students' Digital Wellbeing: A Systematic Review of Empirical Studies. *Journal of Computer Assisted Learning*. Advance online publication. <https://www.tandfonline.com/doi/full/10.1080/10447318.2025.2499943?src=exp-la>
- 5) Attia, N. A., Ibrahim, N. K., Elgamal, S. M., & Villalba, M. (2017). The potential effect of technology and distractions on undergraduate students' concentration. *Pakistan Journal of Medical Sciences*, 33(4), 861–866.
- 6) Banyana, L. B., Padi, K. F., Phiri, M. H., & Ndlovu, M. (2025, February 21). Digital Distractions in the Classroom Among Students: A Cross-Sectional Study. Preprints.org. Retrieved from https://www.preprints.org/frontend/manuscript/84da25eecf9fb6cb60c88bc25e458b02/download_pub
- 7) Cha, S., & Seo, J. (2018). The impact of smartphone addiction on psychological well-being in young Korean adults. *Journal of Psychological Research*, 23(1), 34-45.
- 8) Chen, Q., Yan, Z., Moeyaert, M., & Bangert-Drowns, R. (2025). Mobile multitasking in learning: A meta-analysis of effects of mobile phone distraction on young adults' immediate recall. *Computers in Human Behavior*, 162, 108432.
- 9) Choi, I., Jeong, H., & Lee, H. (2025). New Perspective on Digital Well-Being by Distinguishing Digital Competency From Dependency: Network Approach. *JMIR Medical Informatics*, 13(1), e70483. <https://www.jmir.org/2025/1/e70483>
- 10) Common Sense Media. (n.d.). Constant companion: A week in the life of a young person's smartphone use.
- 11) D'Ambra, J., Wilson, C. S., & Akter, S. (2013). Application of the task-technology fit model to structure and evaluate the adoption of E-books by Academics. *Journal of the*

- American Society for Information Science and Technology, 64(1), 48-64. <https://asistdl.onlinelibrary.wiley.com/doi/abs/10.1002/asi.22757>
- 12) Dietz, S., & Hench, D. (2014). Technology use in classrooms and its impact on students' academic performance. *Educational Technology & Society*, 17(1), 112-120. <https://files.eric.ed.gov/fulltext/ED621601.pdf>
 - 13) Felisoni, D. A., & Godoi, C. K. (2017). The influence of cell phone multitasking on academic performance. *Journal of Educational Psychology*, 108(3), 501-507. <https://tinyurl.com/mwp9r8k4>
 - 14) Feng, Y., & Agosto, D. E. (2017). Digital distraction outside the classroom: An empirical study. *Journal of Computing Sciences in Colleges*, 34(7), 46-55.
 - 15) Gilboy, M. B., Heinerichs, S., Stemberger, A. J., & Chism, N. V. N. (2015). Enhancing student engagement using the flipped classroom. *Journal of Interactive Learning Research*, 26(2), 147-163. <https://www.google.com/search?q=https://www.learnstechlib.org/primary/p/148435/>
 - 16) Hossain, S. F., & Hussain, K. (2019). Effects of variety-seeking intention by mobile phone usage on university students' academic performance. *Journal of Educational Technology Systems*, 47(1), 78-95. <https://tinyurl.com/mrdbj82d>
 - 17) Ifeanyi, C. J., & Chukwuere, J. E. (2018). Influence of Smartphone Addiction on Academic Performance of Students in Tertiary Institutions in Enugu State. *Journal of Educational and Social Research*, 8(1), 103-110.
 - 18) Jackson, C., Eye, M., Witt, L. A., Fitzgerald, C. J., & Peterson, E. R. (2014). Mobile phone usage and its effect on academic performance in students. *Educational Technology Research and Development*, 62(2), 205-220.
 - 19) Jones, J. (2014). The impact of smartphone addiction on academic performance. *Journal of Information Technology Education: Research*, 13, 67-83. <https://tinyurl.com/25x9ab8f>
 - 20) Joshi, S. C., Woodward, J., & Woltering, S. (2022). Cell phone use distracts young adults from academic work with limited benefit to self-regulatory behavior. *Current Psychology*.
 - 21) Kates, A., & Coryn, C. (2018). Effects of mobile phone usage on academic performance of students in Lagos State. *Journal of Educational Studies*, 54(4), 342-355. <https://tinyurl.com/3jk4n5aw>
 - 22) Kurelovic, E., Tomac, Z., & Buntic, M. (2016). Information Overload, Information Literacy and Use of Technology by Students. *Procedia - Social and Behavioral Sciences*, 191, 2628-2632.
 - 23) Lapitan Jr., C. D., Tiangco, C. E., Sumalinog, D. A., Sabello, N. H., & Tuazon, M. A. D. (2021). An Effective Blended Online Teaching and Learning Strategy During the COVID-19 Pandemic. *Education Sciences*, 11(2), 59. <https://doi.org/10.3390/educsci11020059>
 - 24) Lepp, A., Barkley, J. E., & Karpinski, A. C. (2015). The relationship between cell phone use and academic performance in a sample of U.S. college students. *SAGE Open*, 5(1), 1-9. <https://doi.org/10.1177/2158244015573169>
 - 25) Liu, T., Qu, W., Huang, Y., Chen, Q., & Miao, Y. (2019). The impact of educational technology on students' academic performance. *British Journal of Educational Technology*, 50(5), 2187-2201. <https://doi.org/10.1111/bjet.13028>

- 26) McGill, T. J., & Klobas, J. E. (2009). A task–technology fit view of learning management system impact. *Computers & Education*, 52(2), 496-508.
- 27) Mohammad, M. R., & Sreenivas, V. (2025). Nomophobia: A Rising Concern among Mobile Phone Users. *International Journal of Health Sciences*, 10(1), 1-8. https://www.researchgate.net/publication/390400016_Nomophobia_A_Rising_Concern_among_Mobile_Phone_Users
- 28) Mohammed, S. T. (2024, December). Smartphone Usage and Academic Performance of Management Science Students in an Emerging Economy. ResearchGate. Retrieved from https://www.researchgate.net/publication/387227887_Smartphone_Usage_and_Academic_Performance_of_Management_Science_Students_in_an_Emerging_Economy
- 29) Murphy, R., Haugen, K., & Hackmann, D. (2018). The role of educational technology in enhancing student learning outcomes. *Journal of Technology in Education*, 18(2), 159-174.
- 30) Nexus Health Systems. (n.d.). Excessive Screen Time & Mental Health Issues. Retrieved from <https://nexushealthsystems.com/excessive-screen-time-mental-health-issues/>
- 31) Panda, S., Singh, P., Maity, M., & Kar, S. K. (2025). Acute Nomophobia and Its Psychological Correlates in Adolescents: An Explanatory Sequential Mixed-Methods Approach. *International Journal of Environmental Research and Public Health*, 22(3), 329. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11924110/>
- 32) PMC. (n.d.). The hazards of excessive screen time: Impacts on physical health, mental health, and overall well-being. National Library of Medicine. Retrieved from <https://pmc.ncbi.nlm.nih.gov/articles/PMC10852174/>
- 33) Rahaman, M. S., Islam, M. S., Manna, M. A., & Mamun, A. A. (2020). A Comprehensive Study on Excessive Mobile Phone Use and Preventive Measures. *International Journal of Mechanical Engineering and Computer Applications*, 12(3), 297–308.
- 34) Samuel, L. A., & David, T. (2016). Mobile phone distraction and its impact on academic performance. *Journal of Educational Psychology*, 110(3), 453-466. <https://tinyurl.com/3fbhwk9a>
- 35) Sethi, P., Arora, A., Pathania, M., & Sharma, M. (2023). Perceived Health and Nomophobia among Young Adults: The Mediating Role of Depression and Stress. *Sustainability*, 16(1), 96. <https://www.mdpi.com/2071-1050/16/1/96>
- 36) Soo Yang, K., Kim, D. J., Kim, H. Y., & Allen, J. P. (2013). The Smartphone Addiction Scale: Development and Validation of a Short Version for Adolescents. *PLoS ONE*, 8(12), e83558. <https://doi.org/10.1371/journal.pone.0083558>
- 37) Statista. (n.d.). Smartphone user penetration rate as share of the population in the Philippines from 2019 to 2028.
- 38) Sundari, T. (2015). The effects of mobile phone usage on academic performance: A case study. *International Journal of Education and Management*, 3(2), 123-130.
- 39) Teacher Magazine. (2024, October 16). Insights from PISA: Digital distractions in the classroom. Australian Council for Educational Research (ACER). Retrieved from https://www.teachermagazine.com/au_en/articles/insights-from-pisa-digital-distractions-in-the-classroom

- 40) Troll, E. S., Friese, M., & Loschelder, D. D. (2021). How students' self-control and smartphone-use explain their academic performance. *Computers in Human Behavior*, 117, 106624.
- 41) Troll, J. (2019). How Students' Self-Control and Smartphone-Use Explain Their Academic Performance. *International Journal of Educational Research*, 98, 188–198. <https://doi.org/10.1016/j.ijer.2019.09.006>
- 42) Van Wyk, M., & Van Ryneveld, M. (2018). The impact of mobile devices on academic performance: A study among first- and second-year students. *International Journal of Higher Education*, 7(5), 115-127.
- 43) Wang, Y., Lu, R., Chen, Q., & Li, Y. (2024). Association between nomophobia and learning performance among undergraduate students: the mediating role of depression and anxiety. *Frontiers in Education*, 9, 1365220. <https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2024.1365220/full>
- 44) Wang, Y., Shen, C., Novak, D., Pan, X., & Cheong, F. (2020a). Enhancing learning outcomes through educational technology: A longitudinal study. *Journal of Educational Technology & Society*, 23(3), 58-71.
- 45) Wang, Y., Shen, C., Novak, D., Pan, X., & Cheong, F. (2020b). Enhancing learning outcomes through educational technology: A longitudinal study. *Journal of Educational Technology & Society*, 23(3), 58-71. <https://tinyurl.com/mry8fn8n>