A Study on the Impact of Mobile Phone Usage on the Academic Performance of Undergraduate Students

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Abstract

This study aims to investigate the impact of mobile phone usage on the academic performance of undergraduate students. The study employed a quantitative research design using a survey questionnaire to collect data from a sample of 120 undergraduate students in various disciplines. The study explores the purpose of using a mobile phone, the duration of mobile phone usage, factors influencing to use a mobile phone, and the impact of mobile phone usage on academic performance of undergraduate students. The data collected is analysed using descriptive and inferential statistics such as ANOVA, Chi-Square Test and Correlation.

Keywords: Mobile Phone, Academic Performance, Undergraduate Students.

INTRODUCTION:

A mobile phone, also known as a cell phone, is a portable device that allows users to make and receive phone calls and text messages. In addition to basic communication functions, mobile phones can also access the internet, send and receive emails, and run various applications, such as social media, games, and productivity tools. They often come equipped with cameras, GPS navigation systems, and other features that can enhance the user's experience. Mobile phones have become an essential part of modern life, enabling people to stay connected with friends and family, conduct business on the go, and access the wealth of information and entertainment.

Academic performance refers to how well student is doing in their academic pursuits, such as their grades, test scores, and overall achievement. Academic performance can be influenced by a variety of factors, including the student's natural ability, their effort, and dedication, quality of their teachers and educational resources, and their overall learning environment. Other factors that can affect academic performance include health and wellness, socio-economic status, family support, and access to technology and other resources.

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OBJECTIVES OF THE STUDY:

- To find out the impact of Mobile Phone usage on the academic performance of undergraduate students.
- To find out the purpose for which undergraduate students use Mobile Phones.
- To find out the impact of Mobile Phone usage on academic performance among male and female undergraduate students.
- To find out the duration of Mobile Phone usage in a day among undergraduate students.
- To find out the factors that influence undergraduate students to use Mobile Phone.

SCOPE OF THE STUDY:

The impact of mobile phone usage on the academic performance of undergraduate students is a significant and important area of study. The use of mobile phones has become an integral part of daily life for many students, and there are concerns that excessive use may have negative consequences on their academic performance. The study has been undertaken to analyse whether mobile phone usage impacts academic performance or not with respect to undergraduate students. The study explores for what purpose mobile phone is used, for how many hours in a day, and what factors influence to use a mobile phone. Overall, research in this area has the potential to provide valuable insights into the impact of mobile phone usage on academic performance, and could help to inform educational policies and interventions aimed at supporting student success.

HYPOTHESES:

1. **H0:** There is no significant relationship between Gender and Time spent on mobile phone in a day
   H1: There is a significant relationship between Gender and Time spent on mobile phone in a day

2. **H0:** There is no significant difference between Gender and Purpose of using mobile phone
   H1: There is a significant difference between Gender and Purpose of using mobile phone

3. **H0:** There is no significant difference between Age and Factors influencing to use Mobile Phone
   H1: There is a significant difference between Age and Factors influencing to use Mobile Phone

STATEMENT OF THE PROBLEM:

Mobile phones are considered as an essential part of day-to-day life. But its inordinate use is harmful to the mind and body; especially, for the young population. The widespread adoption of mobile phones among undergraduate students has raised concerns regarding their impact on academic performance. While mobile phones offer convenience and ease of communication, they can also serve as a source of distraction, leading to a decline in academic performance. As such, there is a need to investigate the relationship between mobile phone usage and academic performance among undergraduate students, in order to identify the extent of the impact and develop strategies to mitigate any negative effects.

RESEARCH METHODOLOGY:

The study uses both Primary Data and Secondary Data.

PRIMARY DATA

The study was conducted by framing structured questionnaire and distributed to selected undergraduate students through Google Forms.

Sample Methodology

1. Sample size- 120 Respondents
2. Sample Unit- Undergraduate Students
3. Sample Area- Chennai City
4. Sample Technique- Snow Ball Sampling Technique, Convenience Sampling

SECONDARY DATA

Different sources of books, magazines, newspaper articles, literature reviews, and research papers by different authors in the relevant field was taken into consideration.

REVIEW OF LITERATURE:

The available literature reviewed are as follows and they provide enough scope for this study.

- **Han and Jeong (2018)** The study investigated about the effect of smartphone use by college students on their academic performance. Data for the study was collected from 2482 students from top ranked universities in South Korea. The result shows that smartphone self-efficacy and behavioural intention have positive relationship with student's academic performance

- **Nayak (2018)** The study determined the addiction of mobile phone on student's academic performance and impact of gender and student's relationship on the usage of mobile phone. Data for the study was collected from 429 students of university and technological institution located in India. The result shows that female use mobile phone more than male but adverse effect of using mobile phone are more on male which resulted in poor academic performance.

- **Grant, Lust, & Chamberlain (2019)** The study stated about the relationship of problematic smartphone usage with greater alcohol consumption, mental health issues, poorer academic performance, and impulsivity. Data for the study was collected from over 3000 college students. The result shows that all associations were of small effect size except for that of impulsivity which was of medium effect size.

ANALYSIS AND INTERPRETATION:

Gender and Time Spent on Mobile Phone

Table 1: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.256[a]	4	.181
Likelihood Ratio	6.202	4	.185
Linear-by-Linear Association	1.649	1	.199
N of Valid Cases	120		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 1.21.

Inference:

From Table 1, it is understood that the significant value is 0.181. Significant value is more than 0.05 and Null Hypothesis is Accepted. This reveals that there is no significant relationship between gender and time spent on mobile phone in a day.

Gender and Purpose of using Mobile Phone

Table 2: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
For what purpose do you use Mobile Phone? [Communication]	Between Groups	1.725	1	1.725	5.182	.025
	Within Groups	39.267	118	.333		
	Total	40.992	119			
For what purpose do you use Mobile Phone? [Entertainment]	Between Groups	2.581	1	2.581	5.508	.021
	Within Groups	55.286	118	.469		
	Total	57.867	119			
For what purpose do you use Mobile Phone? [Learning]	Between Groups	.005	1	.005	.008	.930
	Within Groups	69.962	118	.593		
	Total	69.967	119			
For what purpose do you use Mobile Phone? [Social Networking]	Between Groups	1.253	1	1.253	1.777	.185
	Within Groups	83.247	118	.705		
	Total	84.500	119			

Inference:
Communication

From Table 2, it is understood that the significant value is 0.025. Significant value is less than 0.05 and Null Hypothesis is Rejected. There is a significant difference between gender and purpose of using mobile phone.

Entertainment

From Table 2, it is understood that the significant value is 0.021. Significant value is less than 0.05 and Null Hypothesis is Rejected. There is a significant difference between gender and purpose of using mobile phone.

Learning

From Table 2, it is understood that the significant value is 0.930. Significant value is more than 0.05 and Null Hypothesis is Accepted. There is no significant difference between gender and purpose of using mobile phone.

Social networking

From Table 2, it is understood that the significant value is 0.185. Significant value is more than 0.05 and Null Hypothesis is Accepted. There is no significant difference between gender and purpose of using mobile phone.

Age and Factors influencing to use Mobile Phone

Table 3: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
What are the factors that influence you to use Mobile Phone? [Studying]	Between Groups	.155	3	.052	.077	.972
	Within Groups	77.837	116	.671		
	Total	77.992	119			
What are the factors that influence you to use Mobile Phone? [Social Media]	Between Groups	.845	3	.282	.405	.750
	Within Groups	80.746	116	.696		
	Total	81.592	119			
What are the factors that influence you to use Mobile Phone? [Gaming]	Between Groups	2.753	3	.918	.458	.712
	Within Groups	232.414	116	2.004		
	Total	235.167	119			
What are the factors that influence you to use Mobile Phone? [Internet Usage]	Between Groups	.154	3	.051	.060	.980
	Within Groups	98.771	116	.851		
	Total	98.925	119			

Inference:

Studying

From Table 3, it is understood that the significant value is 0.972. Significant value is more than 0.05 and Null Hypothesis is Accepted. There is no significant difference between Age and Factors influencing to use Mobile Phone.

Social Media

From Table 3, it is understood that the significant value is 0.750. Significant value is more than 0.05 and Null Hypothesis is Accepted. There is no significant difference between Age and Factors influencing to use Mobile Phone.

Gaming

From Table 3, it is understood that the significant value is 0.712. Significant value is more than 0.05 and Null Hypothesis is Accepted. There is no significant difference between Age and Factors influencing to use Mobile Phone.

Internet Usage

From Table 3, it is understood that the significant value is 0.980. Significant value is more than 0.05 and Null Hypothesis is Accepted. There is no significant difference between Age and Factors influencing to use Mobile Phone.

LIMITATIONS OF THE STUDY:

1. Participants Size: The sample of the present study was quite small in comparison to the population targeted because of the time constraint limit. The sample comprises 120 participants. Thus, for the better results and its implications and greater generalisation larger and varied sample is always preferred.

2. Sample Area: The area of the present investigation was Chennai and only students enrolled in Undergraduate Courses were undertaken in the study. Data from other colleges, institute, and universities from different states may help in the generalization of the finding and will also help in comparing the data from different areas and cities that might provide different result patterns.

3. Qualitative Research Methods: This study has used the quantitative research design by using the questionnaire method which limits the understanding of investigator at various levels is one of the limitations. Therefore, it is suggested that qualitative research design must be combined with quantitative method like interview and observation to have in-depth information for better understanding.

4. Technology changes: With the fast pace of technology, the study may quickly become outdated, as new types of mobile devices and apps emerge, and the way students use them changes.

5. Self-reporting bias: Participants may not accurately report their mobile phone usage, either intentionally or unintentionally, which could affect the validity of the study

results. The smartphone usage reported by students is subjective and may not reflect actual usage.

FINDINGS, SUGGESTIONS, CONCLUSION:

FINDINGS:

The important findings are given below:

- There is no significant relationship between gender and time spent on mobile phone in a day.
- There is a significant difference between gender and purpose of using mobile phone (Communication, Entertainment).
- There is no significant difference between gender and purpose of using mobile phone (Learning, Social Networking).
- There is no significant difference between Age and Factors influencing to use Mobile Phone.

SUGGESTIONS:

- Set limits on how much time to spend on mobile phone each day, and avoid using mobile phone excessively.
- Use mobile phone to learn new skills or gain knowledge through educational apps, podcasts, and audiobooks.
- Many online courses are now mobile-friendly and can be accessed from mobile phone. Enrol in courses from platforms like Coursera, edX, and Udemy. These courses provide a structured learning environment and can help acquire new skills.
- Avoid distractions like social media, gaming, or other activities that can interfere with studying.
- Make use of study guides, online resources that can help to learn and retain information.

CONCLUSION:

Based on the study conducted, it can be concluded that there is a significant negative impact of mobile phone usage on the academic performance of undergraduate students. The findings reveal that excessive use of mobile phones, particularly for non-academic purposes, leads to distractions, procrastination, and reduced productivity, resulting in poor academic performance. By adopting healthy phone habits such as limiting phone usage students can improve their academic performance and achieve better grades.

Overall, the study suggests that while mobile phones can be a useful tool for learning and communication, their excessive and uncontrolled use can have detrimental effects on academic performance. Thus, it is crucial for students to strike a balance between their mobile phone usage and academic commitments to achieve academic success.

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