



جامعة مصر للمعلوماتية
EGYPT UNIVERSITY
OF INFORMATICS

Egypt University of Informatics
Computer and Information Systems
Data Analysis Course

The Analysis of the Performance of Data Analysis Students

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Introduction

In today's digital age, the relationship between smartphone usage and productivity among university students is a subject of intense interest. This report explores the intricate connection between smartphone habits and academic performance. Through survey data analysis, we investigate whether excessive smartphone usage enhances or hinders productivity. Join us as we uncover insights that challenge assumptions and offer practical implications for optimizing study habits in the digital era.

Research Question

Does excess smartphone usage affects university students' productivity level and studying?

Hypothesis

- Hypothesis 1:** Increased Smartphone Usage Negatively Impacts Productivity
- Hypothesis 2:** Smartphone Notification Interruptions Decrease Academic Focus
- Hypothesis 3:** Unintentional Smartphone Usage Leads to Time Mismanagement

Population of Interest:

University students.

Sampling Method:

For this study, we employed a convenience sampling method to recruit participants from the university student population. Convenience sampling was chosen due to its practicality and accessibility, allowing us to efficiently collect a diverse range of responses within a limited timeframe.

Bias Identification:

- Neutral Language:** Used unbiased wording to prevent influencing responses.
- Randomization:** Employed randomization to avoid order effects and reduce bias.
- Inclusive Sampling:** Made efforts to ensure diversity in participant recruitment to minimize selection bias.
- Transparency:** Provided clear instructions and context to enhance participant understanding and trust.

Through these strategies, we aimed to minimize bias in survey design and enhance the validity of our findings.

Survey Questions:

[Age]

[On average, how many hours per day do you spend using your smartphone for non-academic purposes (e.g., social media, entertainment, messaging)?]

[How frequently do you experience interruptions from smartphone notifications while studying or working on academic tasks?]

[How often do you find yourself unintentionally spending more time on your smartphone than you originally intended while studying or working on academic tasks?]

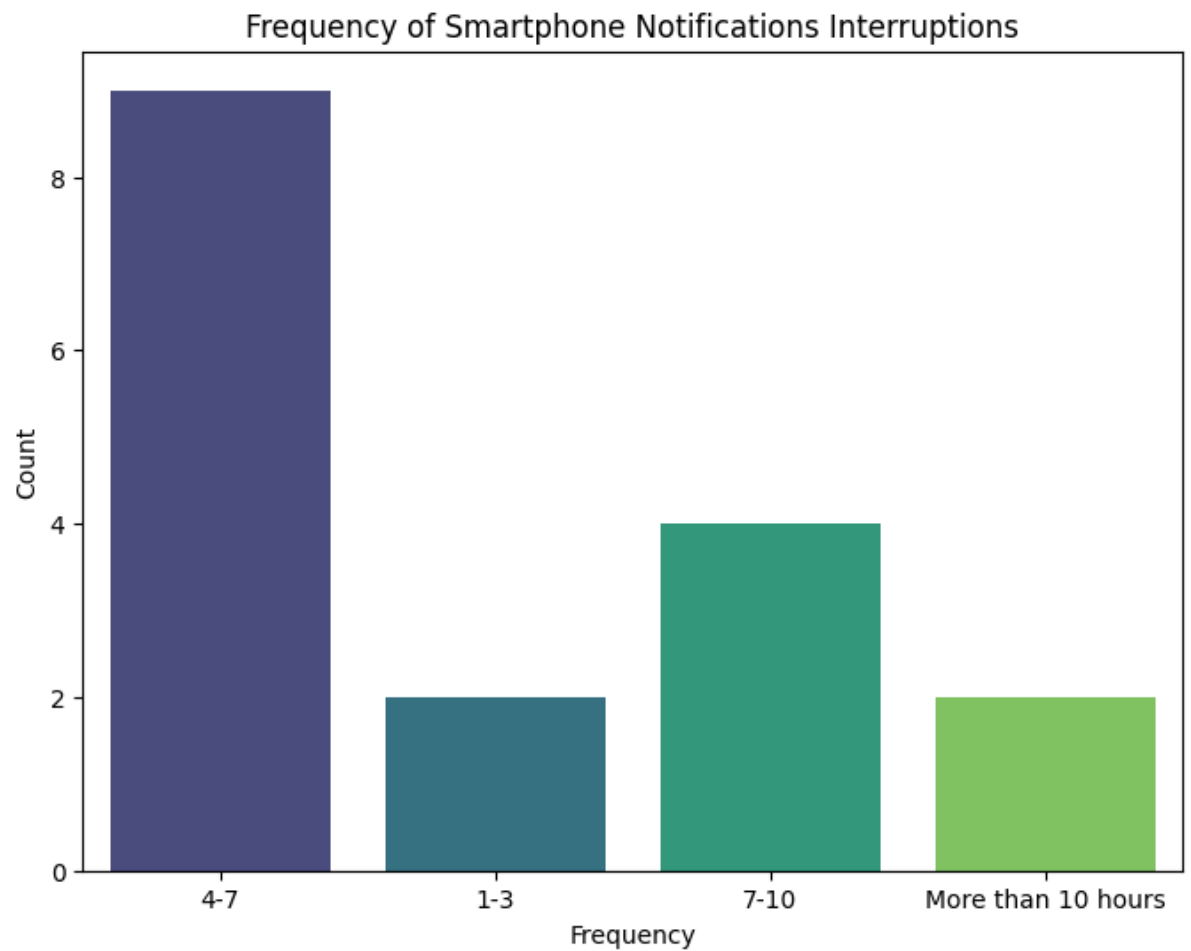
[Have you noticed a correlation between your smartphone usage patterns (e.g., excessive screen time, specific apps) and changes in your productivity levels?]

Online survey link: <https://forms.gle/yLNL5PsGT9Zu4QCs8>

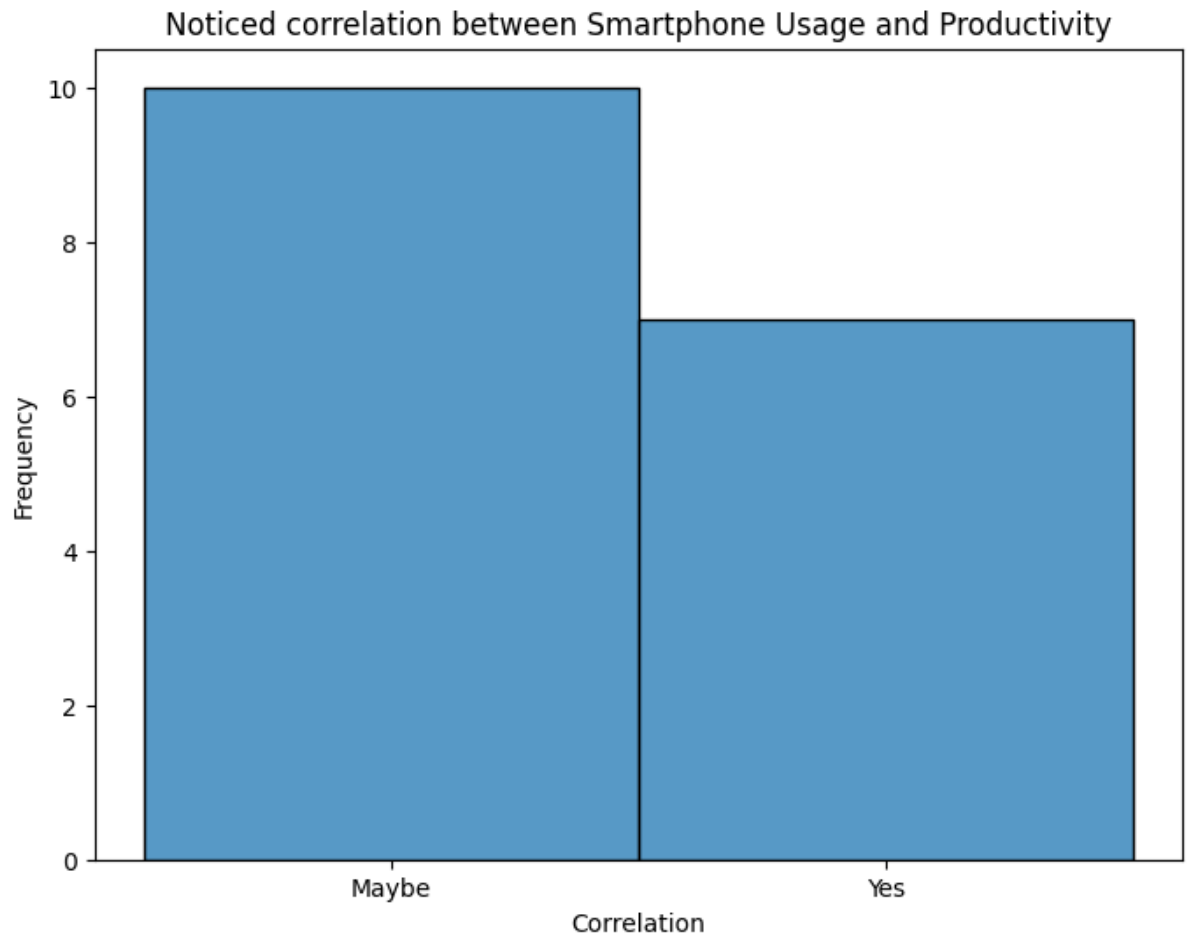
Number of samples collected: 17

Analysis:

To analyze the data collected from this survey, we will create visual representations of the data using charts and graphs to help identify any trends or patterns.



Here we made a bar chart to visualize our responses for how long university students use their phone per day. We found out that most of them use it for average 4-7 hours per day.



Here we made a histogram to visualize university students' responses about if they found a correlation between using their smartphones and their productivity levels. We found out that they all either said 'Yes' or 'Maybe'. That correlates with the fact that no one said that they don't use their smartphones at all.

Conclusion

Hypothesis 1: Increased Smartphone Usage Negatively Impacts Productivity:

While the survey results showed that some participants perceived a correlation between smartphone usage and decreased productivity, not all respondents shared this view. The responses varied, indicating that the relationship between smartphone usage and productivity may not be uniformly negative among university students.

Hypothesis 2: Smartphone Notification Interruptions Decrease Academic Focus:

Responses regarding the impact of smartphone notification interruptions on academic focus and productivity varied among participants. While some indicated a negative correlation, others did not perceive significant effects. This suggests that the influence of smartphone notifications on academic focus may differ across individuals.

Hypothesis 3: Unintentional Smartphone Usage Leads to Time Mismanagement:

Findings on the association between unintentional smartphone usage and perceived time mismanagement were inconclusive. While some participants acknowledged a correlation, others did not perceive their smartphone habits as detrimental to time management. This highlights the complexity of the relationship between unintentional smartphone usage and time management skills among university students.

Any potential issues

Potential Issues:

1. **Sampling Bias:** Convenience sampling may introduce selection bias, limiting the generalizability of findings.
2. **Self-report Bias:** Reliance on self-reported data may lead to response bias, affecting the accuracy of participant responses.
3. **Question Wording:** Ambiguities in question wording could influence participant responses, potentially introducing bias.
4. **Sample Size:** A small sample size may limit the ability to detect subtle effects or relationships.

These identified issues should be addressed to enhance the validity and reliability of the study findings.

