



جامعة مصر للمعلوماتية
EGYPT UNIVERSITY
OF INFORMATICS

Egypt University of Informatics
Computer and Information Systems
Data Analysis Course

The Analysis of the influence of studying with music on productivity

Submitted by: Matthew Wael Mourice

ID:22-101035

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Introduction

The relationship between music and productivity has long been a topic of interest, particularly in the realm of studying and academic performance. Many individuals find that listening to music while studying can enhance their focus, motivation, and overall productivity. However, the impact of music on studying varies greatly from person to person, as different individuals have unique preferences and cognitive processes. Understanding how music influences studying can shed light on its potential benefits and limitations, providing valuable insights for optimizing study environments and techniques. In this survey, we delve into the effects of music on productivity during studying, examining its potential to enhance concentration, memory retention, and overall academic performance.

Hypothesis

Population of Interest:

College students in different universities and majors across Cairo

Sampling Method:

Since simple random sampling was not practical because it was not possible to send the form to every group containing people studying in college. I used Convenience sampling meaning I sent the form to groups I know that contain students studying in college and asked them to as well help out and send the link to other groups they know.

Bias Identification:

I like studying with music though not all the time however, I made sure to ask the question in the survey without trying to prove or influence studying with music is better.

I have sent the form to some groups of people not my friends, as my friends could be similar to me and like studying with music as well therefore not representing the population.

I sent the form to people in different majors inside and outside of the university I know.

I sent the form to different genders as men or women could find more influence of studying with music on productivity

Survey Questions:

[1. Gender]

[2. On average, how frequently do you study with music?]

[3. What type of music do you listen to while studying?]

[4. Do you find that studying with music helps you concentrate better?]

[5. In your opinion, does studying with music enhance your understanding of the study material?]

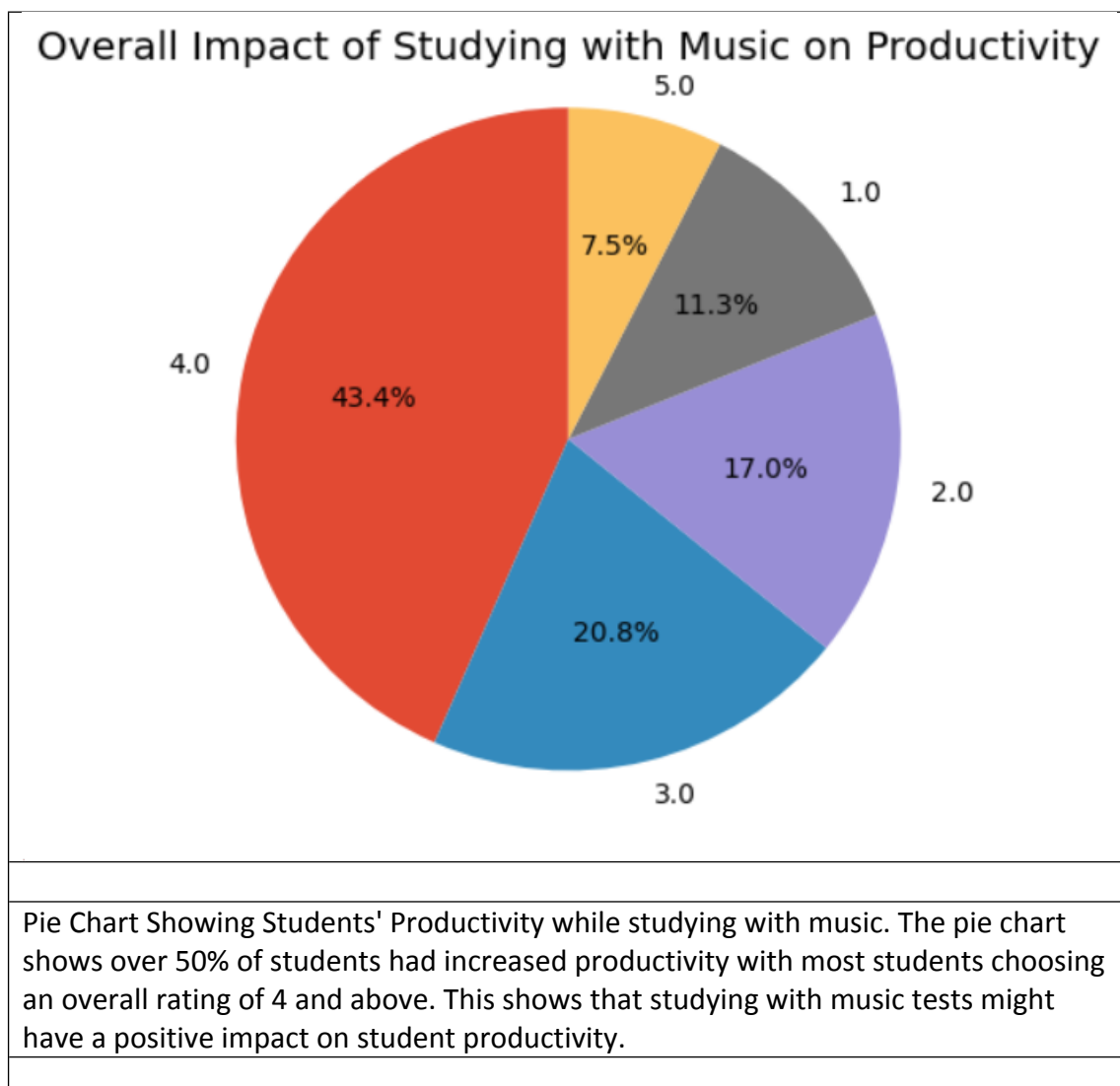
[6. How would you rate the overall impact of studying with music on your productivity?]

Online survey link:

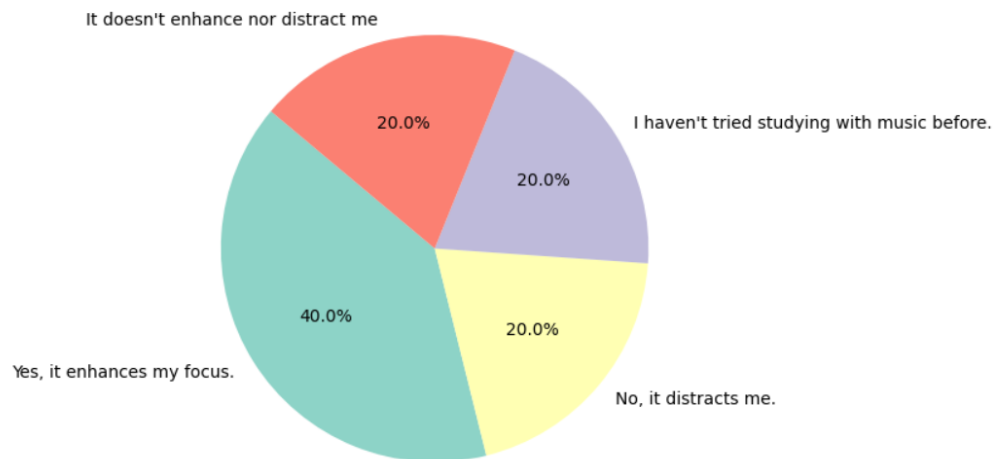
https://docs.google.com/forms/d/e/1FAIpQLSfudOFhiAXNJLmYKCUgWl3KPLOT5I6y2am3PfEgBl8czOC33A/viewform?usp=sf_link

Number of samples collected: 53

Analysis:



Responses to "Do you find that studying with music helps you concentrate better?"



Pie Chart Showing Students' concentration while studying with music. The pie chart shows 40% of students were more focused while studying with music. This shows that studying with music tests might have a positive impact on student concentration, and concentrated students are most likely productive

Conclusion

Most Students listening to music have confirmed that they were more concentrated and understood their material more while studying with music therefore were more productive. The other variables as the gender, type of music, how frequently they listened to music were confounding variables. This project was an observational research

Any potential issues

An issue was I didn't have any quantitative variables so I wasn't able to compare with scatter plot, histogram and we didn't take techniques comparing between two categorical variables so I wasn't able to find clear correlations between the variables etc..

I sent the form to some students outside the university in different majors however I wasn't able to take surveys from all universities

I wasn't able to calculate the mean because it is not applicable for categorical variables