Effect of Music on Task Performance

CS2704 Project Proposal

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Dataset and Github repo

Dataset used: Background Music and Cognitive Task Performance
[Source](#)

[Link to Github Repo](#)

Hypothesis

Listening to music significantly improves overall cognitive task performance compared to performing tasks in silence

Plan for testing hypothesis

Prepare Data: Clean and organize the dataset.

Descriptive Analysis: Compute average performance scores under music and silence conditions; create simple visualizations for comparison

Statistical Testing: Conduct a paired t-test to see if performance differences between music and silence conditions are statistically significant.

Interpret Results: Clearly state whether music significantly improves cognitive task performance compared to silence.

Expected Output

Descriptive Analysis:

Average cognitive task performance will likely be slightly better under music conditions compared to silence, reflecting a positive influence of music on cognition.

Statistical Test (Paired t-test):

The paired t-test will probably yield a significant result (p-value < 0.05), supporting the hypothesis that music improves overall cognitive task performance compared to performing tasks in silence.