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*Totally Mental: A Pilot Study on the Effects of Musical Interruptions on Quantitative, Verbal and Motor Skills Concentration*

The purpose of our project was to study the effects of different types of music on the ability of students to concentrate, as measured by the EEG categories of "attention" and "meditation". We hypothesized that different kinds of music would reduce concentration while performing verbal, math, and motor skills.

The experiment involved testing of subjects on verbal, quantitative, and motor skills activities. During testing, student participants were exposed to classical music, "no music", and pop music. They wore an EEG headset which was connected to a computer to record brainwave activity. Concentration levels were analyzed based on the output of attention and meditation measurements.

The data partially supported our hypothesis although none of our results were statistically significant. The tendencies during math and verbal exercises were for pop music to have a negative effect (3.5-4.4% few elevated readings) on attention and classical music to have a positive effect on attention (2.3-3.7% more elevated readings), while both types of music had a negative effect on meditation levels (0.2%-6.2% fewer elevated readings). The motor activity results were more varied.

These findings led us to believe that pop music has a negative effect on concentration during cognitive processes, and classical music has a positive effect - at least among certain individuals or groups. Yet, since none of our results were statistically significant, we intend to conduct more studies, examining age, gender and other independent variables.