The Effect of Noise Reduction and Pink Noise on Memory and Cognition

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My experiment's purpose was to compare the memory and cognition of high school students when exposed to different levels of noise. For the second year of my project, I chose to add pink noise to test memory and cognition. For my second year of research I had two hypotheses; that student's memory and cognition would decrease with 88dB of pink noise; and, that the data, would show a pattern referred to as the Serial Position Effect. I had a considerable amount of challenges with this project; one being, keeping the experiment room at an utmost constant including both noise and other distractions that could lead to biased results. First, I collected 16 participants using the entire high school population in my selection. Second, I used powerpoints that displayed common words and set them to 1.75 seconds. Third, I showed the power point to two students at a time each in the same room, while keeping the noises in the room to a constant. Also at this time I would control the use of the pink noise over the four experiment dates to test the difference they made in the student's memory. Finally, at the end of each experiment, I gave the student a blank sheet of paper to write down as many words from the powerpoint as they could remember. In every experiment, the Serial Position Effect was positively shown in the order of words remembered by the students. All of the tests proved that students memory performed better without the pink noise and it is implied that the students were able to remember more words in a studying environment they were accustomed to.

Awards Won: