Caffeine and Memory: A Good Idea?

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Last year, my partner and I experimented with the effect of caffeine on athletic performance. We designed three specific athletic tests to see if it did help. After we finished, we concluded that for the group we tested (with set restrictions on the test subjects), caffeine did improve their athletic performance. Immediately after, we wondered if caffeine could have the same effect in the classroom, helping with memory. We decided to design two tests to find out. In our first experiment, we tested the subject's short-term memory with and without caffeine by using 16 playing cards, all laminated into one sheet. We laid the sheet out and gave the test subjects 45 seconds to remember as many cards correctly as they could. After their time was up, we flipped the sheet over and asked them to recite the correct order of the cards. This information was recorded and used later to analyze our findings. Moving along, our second experiment also tested short-term memory. We designed a slide show containing shapes, words, numbers, and colors (each slide was 5 seconds long). After each section, we would ask twenty questions about the information they were just presented. At the end, we asked twenty questions overall. As the previous experiments, there were six trials total: three with caffeine and three with decaffeinated. We used numbers from our experiments to make charts, graphs, run statistical analysis, and draw conclusions that all led to the fact that caffeine does improve athletic and academic performance for the group we tested. Was our project perfect? No. There are many improvements that will be made next year and the year after that. At the end of our high school journey, we hope to test everyone possible to see if caffeine does help with athletics and academics.

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