

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

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Project Number

J0621

Project Title

The Effect of Olfactory Stimulation on Short-Term Memory

Objectives/Goals

The goal of this project is to make study time more efficient by introducing another stimulus, such as scent, during the process of memorization. The original hypothesis states that if individuals study while inhaling a certain scent, then the scent will trigger more memory recall because they are using more than one of their senses.

Abstract

Methods/Materials

Test subjects were asked to memorize as many words as they could out of ten in one minute. Then, they wrote down all of the words they could remember. They repeated doing this for a second time, except they studied while inhaling a citrus essence consisting of a make-up sponge saturated in Aromatherapy Orange Nectarine Oil.

Results

The results of this experiment conclude that the average number of words correct while inhaling a certain scent is 6.6 and the average number of words correct without inhaling a scent is 7.28. The results do not support the original hypothesis.

Conclusions/Discussion

One reason that this may have occurred is because although scents trigger memories, a certain memory may already be tied to that scent. Also, the scent may trigger thoughts or emotions that are not connected to the situation at present. Therefore, the scent would serve as a distraction

Summary Statement

The Effect of Olfactory Stimulation on Short-Term Memory

Help Received

My teacher proof-read my report and helped me correct mistakes.