

CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

Name(s)

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Project Number

J0710

Project Title

Lifestyle vs. Memory

Abstract

Objectives/Goals

The objective of this experiment is to test whether an active or non-active lifestyle can affect the memory of a person. This experiment specifically targets elderly persons between the ages of 70-75. My operational definition of an active lifestyle constitutes of a person who performs a physical activity (walk/jog, golf, tennis, etc.) at least three times a week.

Methods/Materials

I used 20 subjects, 10 with an active lifestyle and 10 with a nonactive lifestyle. To do the experiment, first I asked the participant a series of question to see if they had an active or nonactive lifestyle. I laid down a memory game in front of the participant. Then I started the timer. The participant would flip ver two cards at a time. If the pictures on the back of the cards match, then they could put them aside. If they do not match, they would put them back and continue the game.

Results

My results showed that the seniors with an active lifestyle took an average of 4.19 minutes to complete the test. The seniors with an inactive lifestyle took an average of 5.18 minutes to complete the test. The comparison between the inactive and active lifestyle results showed that there was a difference of about 1 minute to complete the test between the active and inactive lifestyles.

My promising results were that its never too late, even the seniors who did not exercise in the past, and started exercising after they got old showed a better memory than the seniors that did nothing at all.

Conclusions/Discussion

After I tested all of the participants I conclude that my hypothesis is correct. The seniors with an active lifestyle have better than seniors with an inactive lifestyle. The seniors with an active lifestyle had better memory so it took them less time to complete the memory game whereas the seniors with an inactive lifestyle took them longer to complete the memory game because their memory is not as good. The seniors with an active lifestyle took an average of 4.19 minutes and the seniors with an inactive lifestyle took an average of 5.19 minutes. The comparison between the active and the inactive lifestyles showed that there was a difference of about one minute between them.

Summary Statement

I showed that seniors with an active lifestyle have better memory than seniors with an inactive lifestyle

Help Received

Ms.Sarah and Mr.Mohammed