

# CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s)

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**Project Number** 

J0712

**Project Title** 

The Battle of Wits

## **Abstract**

## **Objectives/Goals**

My project was to find out which gender has better short term memory. My hypothesis was if males and females take the same memory tests, then the females will achieve higher scores.

## Methods/Materials

. To determine this I prepared four tests based on short term memory (STM). Two of them were physical and two were online memory tests. First test was Item Recall (one trial), twenty items were displayed for a couple of minutes and subjects had to write it in given time. The second test was Simon Flash (three trials), where colors flashed in a certain order, the subject had to repeat it with the same pattern. The two online tests were Number Sequence (two trials) and Letter recall (six trials), where number or letters appeared in a certain order, and participants had to memorize and write it in the same order. Those tests needed internet access. I tested thirty subjects fifteen of each gender. All subjects took every test; the totals of trials of the tests were 360.

#### Results

The results show that in all four memory tests, the average of the females# scores was higher than of the males# scores.

## **Conclusions/Discussion**

The derived conclusion supported my hypothesis; females have a better STM than males which indicates that memory plays an important role in brain function. Females have been shown to have consistently stronger short-term or working memory. Women are thought to be able to hold more items of verbal information in short-term storage at once. This advantage in short-term memory is thought to be linked to women#s superior ability to attend to more than one task at once, or #multitask#

## **Summary Statement**

My project was about short-term memory differences in males and females

## Help Received

Mom helped organizing the project; Dad helped in printing papers.