Logbook

January 10

Possible science fair ideas :
How does Pepsi affect our teeth?
Does sleep affect our memory?

January 11,

I have selected my topic question and procedure. I plan to have participants read four chapters from four books, although I have yet to choose the specific books.

January 12,

I have made my background research into the following paragraph: Sleep deprivation affects your ability to learn in two ways. Because you can't focus as well, it's more difficult to pick up information, so you can't learn as efficiently. Lack of sleep can hinder you from thinking clearly. It also affects memory, which is

essential to learning. When we first form memories, they're in a very raw and fragile form. Lack of sleep affects a part of the brain called the hippocampus, which is key for new memories. You accumulate many memories, moment by moment, while you're awake. Most will be forgotten during the day. Studies show that excessive sleepiness can hurt work performance. After I finished my background research.

January 13,

I have decided to modify my procedure after considering the possibility of participants being unfocused or inattentive. To ensure efficiency and conduct higher-quality testing with a bigger testing size, I have devised a different procedure. I will create five cards, each with five words on the back. Participants will be asked to record their sleep duration during the following night. Later in the day after, I will test their ability to recall the words.

January 16,

I have finalized my hypotheses and the materials required for conducting the testing.

Here they are : Hypothesis: I hypothesize that the quantity of sleep affects memory only if the amount is sufficiently high and that it is the key factor in the question

Procedure

I showed the person I was testing   the cards
5.   I waited till the next day
6.   I asked them how much sleep they got
7.   I recorded their score
8.   I analyze
Materials:
5 paper cards,
 and recording sheets

January 17,

I have completed the first part of the initial test and observed that participants seemed to struggle with numbers 3 and 2. However, I am unable to explain why these particular numbers posed difficulties, as they are not the most challenging words in the testing material.

January 18,

After a day of waiting, I proceeded with the second part of the test, which involved testing memory. Surprisingly, participants achieved a score of 12 out of 20. I did not anticipate such results from the first test. Additionally, I am beginning to consider the potential influence of age on memory and the role of the hippocampus in remembering. I also initiated the first part of the second test, which focuses on visual perception. Furthermore, I am contemplating whether age has a positive impact.

January 19,

I have received the scores for the second test, and I am utterly astonished by the exceptionally low results. Additionally, I have commenced the initial section of the third test, and I have decided to administer two tests per day.

January 20,

I have finished my third and fourth tests, one of which had an average score and the other having the highest score so far in my testing. I also conducted the first part of the 5th and 6th tests.

January 21,

After receiving the scores of the 5 and 6 tests I am going to stop testing for today to analyze the scores so far. After analyzing the scores, age and the time slept.

January 22,

Today I have conducted the final 3 tests which are 6 and 7 and 8.

January 23,

Today I have finished my experimental testing and have started analyzing the scores and building graphs. I have built these

graphs on a Google sheet and have decided to make it a bar graph.

January 24,
Today I have started planning my tri-fold.

January 30,
I have started plating my tri-fold and have finished putting most things onto the tri-fold.
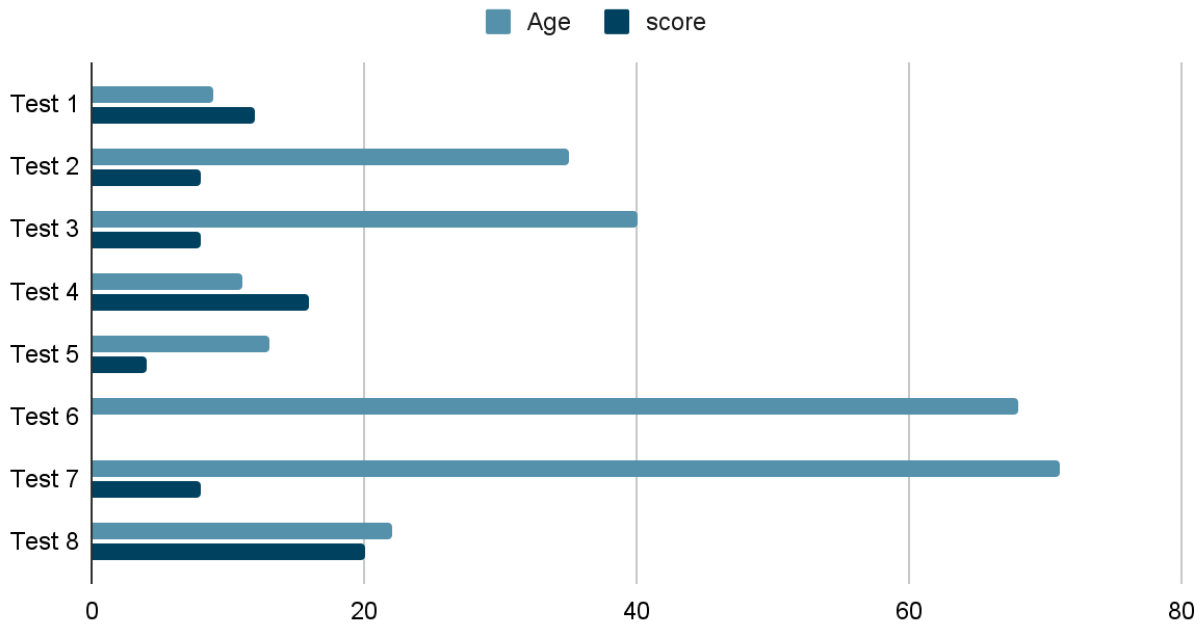
February 1,
I have finished all the science fair.

February 20,
 I followed the suggestions of the judge and conducted more tests as he had advised me. I have made double the amount of contestants/participants

Points scored

■ Age ■ score

Points scored

Legend: ■ Time Slept ■ score

- Test 1
- Test 2
- Test 3
- Test 4
- Test 5
- Test 6
- Test 7
- Test 8

0   5   10   15   20