

Screen Time



Introduction

In my science project, I am talking about screen time. The problem is, does looking at a screen for 2 hours affect focus, or reaction time? I think my alertness will not be as quick as if I was not looking at a screen plus I would be very sleepy if testing before bed. This is important because in this generation I think everyone gets a little too much screen time and people should know the effects of screen time. Scientists have already studied this topic and have gotten the same results



Statement of the Problem

The problem in this experiment is does looking at a screen for 2 hours affect reaction time or focus? The purpose of this experiment is to know more about these effects to screen time. I want to do this experiment because a lot of kids in this generation spend a lot of time on screens and it affects their eyes. This information gained from this experiment will help other people because they will know the effects that can hurt their eyes. This issue is critical to me and the community because we spend too much time on screens.

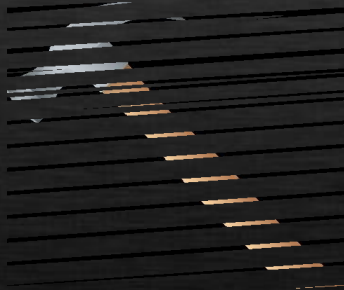
Hypothesis

I think my reaction time will not be as quick as if I was not looking at a screen plus I would be very sleepy if testing before bed because staying up with no electronics already has side effects in the morning and with electronics i will be more tired or without energy.



Materials

- 1 Xbox
- 1 Monitor
- 1 Desk
- 1 Controller
- Notebook to write data
- pencil



Variables

- Independent-type of screen
- Dependent- focus and reaction time.
- Control-time of day, reaction time test

Procedures

The step-by-step procedures for the student's investigation will be presented here.

- Step 1: Start at 8 pm and get supplies(xbox, monitor, phone)
- Step 2: Document your eyes and how they feel
- Step 3: Document your reaction time
- Step 4: Set timer for 2 hours and get comfy
- Step 5: After every 30 minutes check for any discomfort in the eye
- Step 6: After a period of two hours make sure you have listed 4 different times measuring
- Step 7: Document how your eyes feel and the time it and do a reaction test on your phone
- Step 8: Document your reaction time after
- Step 9: Repeat steps 1-9, 4 times



Results and Data

The results of this study showed that the more time spent on screens decreased my reaction time. Each trial showed my reaction time progressively getting worse as shown below in the graph.



Results: Data Table

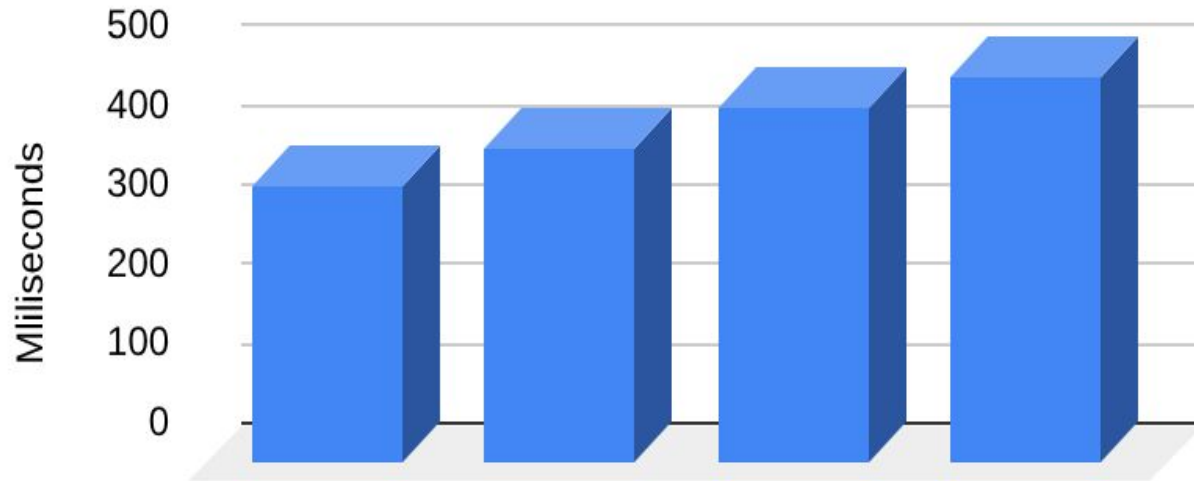
Reaction time	Miliseconds
trial 1	350
trial 2	397
trial 3	450
trial 4	485



Results: Data Graph



Reaction Time



Photographs of Project:



Conclusion

The objective of this lab was to determine if looking at a screen can affect reaction time. This objective was completed by looking at a screen for 2 hours. The results showed noticeable changes in the variables.

The hypothesis was supported by the results of the experiment. It was predicted that my reaction time would not be as quick as if I was not looking at a screen plus I would be very sleepy if testing before bed because staying up with no electronics already has side effects in the morning and with electronics I will be more tired or without energy.

The data tells me that the more time I spend on a screen the worse my reaction time will be. My reaction significantly worsened throughout the investigation. So my hypothesis was proven correct.



Implications and Ideas for Future Research...

I learned that the more time I spend on my devices it will have a lot of side effects. This experiment can help a lot of people. Especially because devices are a daily use.

If I could change one thing. I would have more trials. Or I could do a trial every 15 minutes. Maybe I could have multiple students or a larger sample.

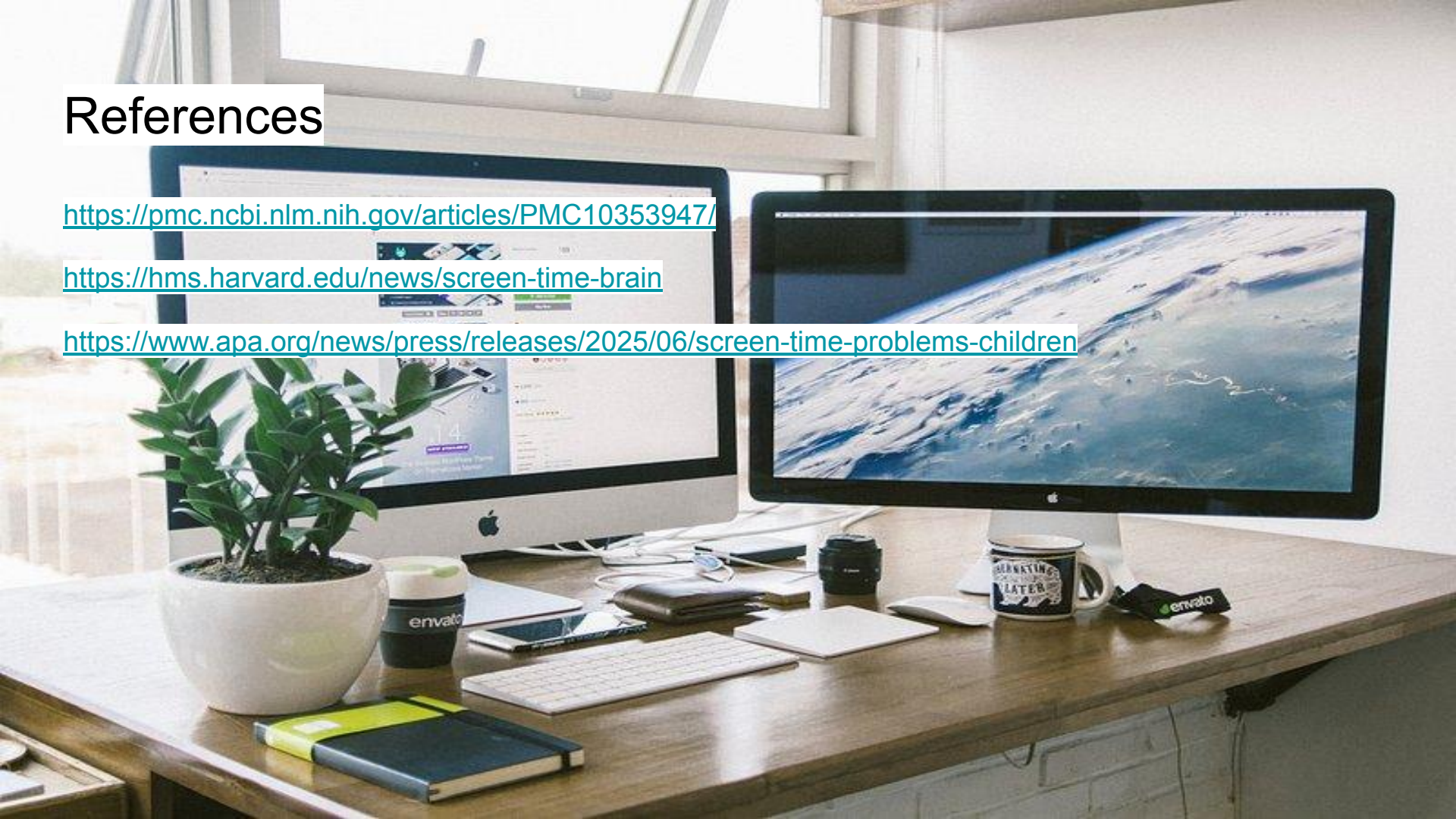


References

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<https://hms.harvard.edu/news/screen-time-brain>

<https://www.apa.org/news/press/releases/2025/06/screen-time-problems-children>



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Dependent- Focus and reaction time
Control - Time of day, reaction time test

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- Step 8: Document your reaction time after
- Step 9: Repeat steps 1-9, 4 timestep 1: Start at 8 pm and get supplies(xbox, monitor, phone)

Title

Objective

Does looking at a screen for 2 hours affect reaction time or focus?

The problem in this experiment is does looking at a screen for 2 hours affect reaction time or focus? The purpose of this experiment is to know more about these effects to screen time. I want to do this experiment because a lot of kids in this generation spend a lot of time on screens and it affects their eyes. This information gained from this experiment will help other people because they will know the effects that can hurt their eyes. This issue is critical to me and the community because we spend too much time on screens.

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