

Video Games Impact on the Brain

Grade 5
Jialin

Purpose:

I am doing this for showing that video games make you unintelligent, no impact, or intelligent.

Testable Questions

Does video games make you unintelligent?

Prediction

According to the research that I did (shown farther into the slideshow) I think that video games will make you smarter!

Procedure:

1. Find some math problems.(Math Kangaroo)
2. Find a timer
3. Set it to 30 minutes
4. Complete math problem part of math kangaroo workbook (Different levels of problems
5. Find how long it took) (The problems will be from year 2000, 2002, and 2004)
6. Start the timer
7. Check work
8. Record data (How much I got it right and how long it took)
9. Play 30 min video game (Unravel 2) [there will be a picture of this game below]
10. Check work
11. Record data(How much I got it right and how long it took)
12. Play 1 hr video game (Unravel 2)
13. Find the same math worksheet.
14. Find a timer
15. Complete same math problem worksheet
16. Find how long it took
17. Check work
18. Record data (How much I got it right and how long it took)
19. Compare datas
20. Write about the data and how it compares to my prediction

Background:

I chose this project because I play video games sometimes, and I wondered if video games will affect your brain or not.

In my research I found out that an average child plays an average of 1.5 to 2 hours of video games daily. I also learned that 25% of Americans play 3-7 hours of video games a week, 25% of Americans play 8-12 hours of video games a week, 25% of Americans play 13 hours or more. Another thing that I learned is that children who play video games longer than average increased their intelligence between the two measurements by approximately 2.5 IQ points more than average.

This project is important because my friend told me that playing video games will make your IQ level lower, and because so many people play video games, it is important to know how video games are impacting them.

Background:

Another research is that if different types of video games will have different impact on your brain. I learned that not all video games affect your brain equally.

Another thing that I was wondering about is how video games were made. Video games were made in the 1950s and 1960s computer scientists began designing simple games and simulations on minicomputers and mainframes. They were made by some MIT (Massachusetts Institute of Technology) students.

Another thing that I was wondering about is what video games' advantages are. From my research, I noticed that games will give you a lot of strategy thinking.

Constant Conditions:

Independent Variable: The ONE thing you change

How much I play video games. (Play video games, and don't play video games)

Dependent Variable: What you are measuring or observing

Observing how much math problems I get right, and how fast I finish the math problems

Each math problem right: 1 point for each problem correct (Year 2000, 2002, and 2004)

Time under 30 min: 6 points

Constant Conditions: What you are keeping the same every time

Number of the math problems and the type of the math problems

Same kind of video game that I will play for 1 hour

Time given for each trial

Before Observing the Data, please read this.

I am going to do ten problems from each year for each trial.

Picture of Unravel 2



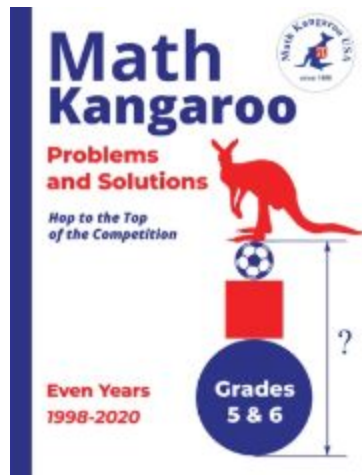
Data and Trials:

Data according to my project

Date	Trial Number	Time spent playing video games (min)	Number of correct worksheet answers (10 problems)	Time I took to finish worksheet (Under 3 min=3 pts)	Total number of points
Friday 2/21/25	1	0	6	4:08.58	6 pts
Saturday 2/22/25	2	30	4	2:09.92	7 pts
Sunday 2/23/25	3	60	6	2:09.96	9 pts

Illustrations and photos





Workbook that I used for the trials

Conclusion and Reflection:

I found out that

I took less time to do the worksheet when I played video games than when I was not. I also found out that I had more points each trial. Which means that I was getting smarter, especially trial 3, which I got the same number of correct answers as the first one.

I was surprised that you playing short amount of video games is worse than playing a longer amount of video games. (According to the data)

If I did this project again, I would have done the actual experiment earlier than this one. It is because I did the experiment in 21, 22, 23, and due date is 25, so I would like to start this experiment earlier.