

# The Effect of Sleep

Zephir

6/1/21

This experiment is about how sleep affects your physical energy. I chose different amounts of time I would be asleep. Next I jumped to see how high I could jump then I slept for the amount of time I picked. Next I got up at a certain time, jumped to the height that I picked like five times then I took notes on what I observed. I did not feel all that much of a change in till the last two nights. That's when it got super hard to jump and really hard to wake up.

## **Introduction**

Have you ever stayed up really late and been super tired the next day? Well for the past month or two I have tested the power of sleep deprivation on my energy. Many people every day go to bed very late and wake up early. My study can prove or disprove other experiments of sleep. How does the amount of sleep I get have an affect on my ability to jump and energy levels?

## **Background research**

From the information I have gathered, everyone is different and different people need different amounts of sleep. For most people a sleep schedule is nice because it lets you be consistent with the sleep time that you get. Some people hate getting a little bit of sleep but others function normally with small amounts of sleep.

Scientists have studied the effects of sleep on people's mood and their physical and mental energy. Having trouble sleeping? Try sleeping on your stomach or on your side. Sometimes if you have gained or lost a lot of weight it might be hard for you to sleep comfortably due to new presherpoints.

Coming to a conclusion your body is completely and utterly your own and finding a comfortable sleep schedule for the perfect amount of energy is based on what you are comfortable with.

## **Experiment**

I will measure how high I can jump in feet and inches.

My independent variable is how much sleep I will get.

My dependent variable is if I can jump to my target height every time and also how I feel after.

## **Hypothesis**

My hypothesis is, I think that the less sleep I get the harder it will be to jump and also I think it will be hard to get up at seven every morning. I will do the same jumping test every morning and night.

## **Procedure**

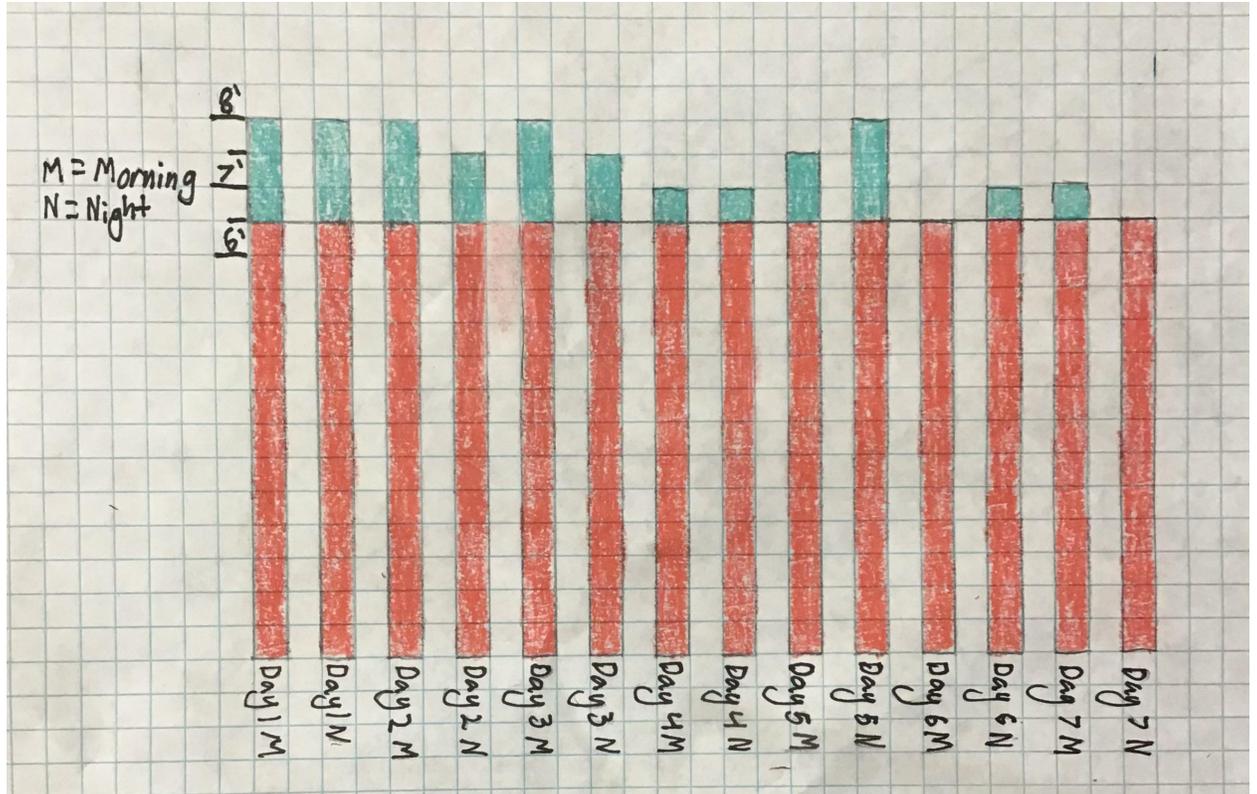
What effect does the amount of sleep I get have on my energy and my ability to jump

The first thing I did was I took a tape measure and taped it to the wall with the one inch part on the ground and the tape measure part going to my ceiling. Then I reached up as high as I could and measured where the tips of my fingers were. After that I set up a camera and video taped the next things I did.

I jumped as high as I could three times. I looked at the video to see how high I jumped for each one then I calculated the average. This would be a target jump for all future jumps. The next thing I did was choose how many hours of sleep I would get in this case eleven nine eight seven, six and five hours.

The first thing I did in the morning was set a camera up. After that I did five jumps with about seven seconds to cool down in between. After I was measuring how many times out of five I could jump to that target height and also how I felt after. The same day at seven pm I repeated what I did in the morning. I did this all seven days. I took notes every day recording what happened.

Graphs



## Results and analysis

Some things that definitely affected my data is that I didn't fall asleep exactly on the hour. Another thing is I didn't wake up at seven on the dot. Also food and sports can make me feel more tired. There aren't that many positive things that happened unless you count the experiment going well.

## Conclusion

My hypothesis was not wrong but it was in no way on the dot. Instead of it getting harder and harder to jump like I thought would happen it was basically the same until the last two nights that's when it got super hard.

If I did this experiment again I would get up at seven thirty and do my jumps at eight because when I did my jumps right when I got up I think it wasn't as good of a test because I had just woken up.

I think if I continued this research I would do this experiment again with the changes that I have mentioned. After that I would do a mental test and so on.

My experiment is important because it educates people on the short and long term consequences of sleep deprivation.

## **Bibliography**

sleepfoundation.org. 2021. April 20 2021 <https://www.sleepfoundation.org/>  
Healthline. 2005. April 21 2021 <https://www.healthline.com/>

## **Acknowledgements**

I would like to thank my mom for helping me think of this project.

I would also like to thank my science teacher Mr Beseau for helping me so much on any questions or problems that occurred.

The last person I have to thank is my dad for waking me up in the morning because it got so hard for me to want to get up at seven every morning.

Thank you so much to all these people .