

Does the weather affect your mental and/or physical health?



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Abstract

My research was about looking at patterns between the weather and a person's mood. My research question is “does the weather affect your mental and/or physical health?” The GLOBE protocols we used were the cloud protocols to test what the weather was like for that day, this protocol includes cloud cover. The results of our research are that the weather affects your mood. I have noticed that when the weather is bad you are not going to be as happy or motivated, and when it is a nice day you are normally more motivated and happy. We conclude that weather affects your mood and how you feel. I collected data by using the GLOBE Observer app.

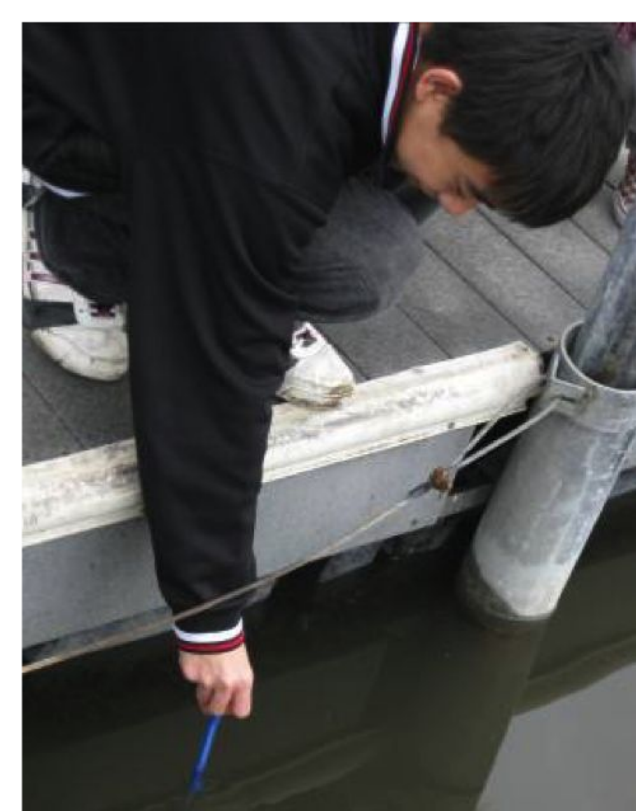
Question/Hypothesis Asking Questions

My research question asks if the weather patterns affect someone's mood patterns. I am interested in researching this topic because I would like to know if the reason someone might feel more motivated compared to other days is because of the weather. In class I learned about precipitation and how it forms also about how and why we have different types of weather and we wanted to find out more about the weather patterns. My hypothesis is that the weather patterns do affect the mood patterns of humans. This question is important because many people feel different when the weather changes. This question is important because many people don't know why they feel a different type of way when the weather changes. This question is also important because knowing why you feel the way that you do and that you know somewhat how you may feel in the near future is good.

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Introduction Content Knowledge

- ☐ Write between 300 and 500 words
- ☐ State the importance of the research
- ☐ Review what you know already about this research topic
- ☐ Describe the environmental or societal issue addressed by the research question
- ☐ Demonstrate knowledge of facts, scientific concepts, and fundamental principles covered in the GLOBE protocol
- ☐ Cite research from 3 or more scientific studies, including at least one primary source in a “peer-reviewed” journal
 - *Researching this topic is important because*
 - *This topic addresses _____ issue because _____*
 - *For our research we used _ GLOBE protocols or data to understand how _____*



Field Photos (requires release forms)

Research Methods

Planning Investigations

Describes the planning process

For this investigation I collected data from 2 different places, Carlsbad New Mexico and Oakridge Oregon. In both locations the weather was about the same (sunny) for the majority of the data that was collected. In both areas the ground was dry and it only rained once during any of the data collecting. In Oregon there was grass and in New Mexico there wasn't in the locations that data was collected. Both of the locations had very different ground conditions. New Mexico has dry ground and little to no humidity. Oregon is the complete opposite, It is easier to grow things there because their ground is not dry. They also have lots of rain and humidity. I used the GLOBE Observer app to collect the data used as well as the GLOBE weather protocols. Both parties used the globe observer app to take pictures of the sky and ground conditions in all directions, then they also collected the temperature. After they were outside they took a questionnaire about how they felt. The questionnaire was based off of the Beck Depression Inventory (BDI). Most of the data was collected during the afternoon, the data was taken once a week from each location or 2 data points per week. The only other time data would be collected would be if there was rain or snow. The data was sent to my email after it was collected by the other party in Oregon. The data was taken in Oakridge Oregon, and Carlsbad New Mexico using the GLOBE Data App.

Carrying Out Investigations

Describes what *actually* happened

The steps that were used for data collection were using the GLOBE weather app to take pictures of the surrounding area of where I was. The once I did all of the protocols for the app I took the questionnaire that was based on the BDI (Beck Depression Inventory). Data was collected 2 times a week. Once a week per location in the afternoon on Wednesdays. I collected data for 4 weeks and got 8 data points. The two locations that I tested in were Carlsbad New Mexico and Oakridge Oregon. The GLOBE protocols we used were the weather protocols and I used the GLOBE Weather App to collect and save data. When we collected data it was in the afternoon. We collected a total of 8 data points in total for 4 weeks. On some occasions data was collected off of the schedule that we had set if there was any kind of precipitation or if anything happened that may completely change how they feel. We analyzed the data using the GLOBE weather procedures and by using the GLOBE weather app procedures. Our methods help to answer the research questions because I needed to know what the temperature and weather conditions were in two different areas of the country and see how people feel about it in other areas of the country.

Figure #1

Map of Study Site(s)

Results

Analyzing Data

The analysis we conducted addressed the research question because I needed to know how others that are not in my area feel about the weather in their area and if they understand that they may feel differently because of the weather

A summary of our results shows that the weather does affect your mood and how you feel.

According to our data, the weather does affect the way that you feel whether that be positive or negative.

Figure #2

Count



Discussion

Interpreting Data

- *The most important results are that the weather does affect the way that most people do feel both mentally and physically.*
- *The results mean that when the weather changes you will feel it in the way that your mood and the way you feel will change it.*
- *The data are important to science and our community because being able to change the way that you need to prepare yourself for the way that you will feel both physically and your mood.*
- *Comparing our results to similar studies by other researchers reveals that many other people that have researched this project have had about the same results as the ones that I got.*
- *The results do help answer the research question because I have found out that my hypothesis was right.*
- *The results do support our hypothesis because this proved my hypothesis is correct and that many other people have had the same results as me.*
- *We had problems collecting and recording data because it was hard to try to connect from across the nation and try to coordinate schedules for collecting data.*

Conclusions

Drawing Conclusions & Next Steps

After collecting results for 4 weeks I have learned that the weather does affect the way you feel mentally and physically. I also found out that for most people when the weather is hot you normally want to be more active and when it is cold they like to “chill” out and not do as much. I reached my conclusion by looking at the results of my questionnaire and compared the results to the weather in both places. If I had more time and more resources I would have better data and have more people that would all have their own utensils to be able to collect and submit data. My conclusion is that the data does show that the weather does affect the way you feel mentally and physically.

Bibliography

References

Navigation. (n.d.). Retrieved April 22, 2021, from <https://www.globe.gov/>
Why does the weather affect your mood? (2019, May 23). Retrieved April 22, 2021, from <https://neconnected.co.uk/why-does-the-weather-affect-your-mood/>

