

## Case Study Assignment 2

### Eating chocolate can help you LOSE weight, shock study discovers

If you would like additional resources on how to read research papers, please see the following links below!

#### How to (seriously) read a scientific paper

- <https://www.sciencemag.org/careers/2016/03/how-seriously-read-scientific-paper> (AAAS)
- <https://web.stanford.edu/class/ee384m/Handouts/HowtoReadPaper.pdf> (Stanford)
- <https://www.owlnet.rice.edu/~cainproj/courses/HowToReadSciArticle.pdf> (Rice)

#### Learning Objectives

- Think about the study design: What do you and don't you know about how the authors conducted research?
- Compare and contrast what information was shared about the research between the two articles.
- Reflect on your initial reactions after reading the headline of article 1. How could this be dangerous for the public?

**Research Article** Read the article (1) linked below and answer the following questions:

<https://www.dailystar.co.uk/diet-fitness/chocolate-diet-how-lose-weight-16836113>

- What is the sample size for this study?
- Identify which variables (listed below) are the explanatory variable and which is the response variable. Are each categorical or quantitative?

Whether the subject ate a daily 1.5 oz (42 grams) bar of dark chocolate or not:

Amount of weight lost in 21 days:

- Which group of individuals was reported to show the highest weight loss?

- Based on the study, what claims do the authors make?
- Do you have any questions / things you wonder about this research study? List them below.
- Based on this article, would you recommend your friend who is trying to lose weight to eat chocolate? Justify your answer.

## Part 2

**What really happened** Read the article (2) below and answer the following questions:

<https://io9.gizmodo.com/i-fooled-millions-into-thinking-chocolate-helps-weight-1707251800>

- How many different potential response variables did the researchers measure on each subject?
- Compare your initial reactions of the first article's headline and the second article's headline. Comment on the dangers of false publications.
- In your own words, explain why this type of study would be considered "bad science." Please post 2-3 sentences justifying your answer onto the discussion board post: "Bad Chocolate Science."

- Reflect on the learning objectives above. If you have any questions or comments, please post on the “Bad Chocolate Science Questions” discussion post.