

# Case Study Intro

## Choose your article

Research articles report the methods and results of an original study performed by the authors. Because of an extensive review process, research articles often have a level of authority and credibility that your typical website article may not. The use of research articles is expected of academic course work, and the review of research articles is expected when conducting your research. Regardless of your field, it is an important skill to be able to read and interpret research articles to both better inform your decision making and spark new research ideas.

For this first assignment, you will be given the opportunity to choose which field of research you would like to explore. The five different fields can be seen here below. The articles can be found on D2L. Choose ONE article for this assignment.

- Agriculture
- Business
- Education
- Nursing
- Psychology

These papers are not like your typical textbook readings, and can be extremely intimidating to read. You are NOT expected to understand the entire article. The goal of these case studies are for you to develop skills to be able to understand what is going on at the surface, and pick out information that is important to you to better understand the research. Specifically, you should be able to:

### Learning Objectives

- Understand the purpose and importance of a literature review / theoretical framework
- Identify key characteristics of a research study including: sample size, how the data were sampled, method of analysis and statistical evidence used to justify claims
- Think critically about the variables involved
- Read and describe the visualizations used by the authors
- Understand the statistics process as a whole
- Develop thoughtful questions concerning authors' claims.
- Always be a skeptic
- Concisely summarize the results for a different audience

**Growth in development** You will re-visit your chosen article at the end of the semester, comparing your answers from this case study to observe your growth! This case study is not graded on accuracy. Try your best knowing we will re-visit these types of questions throughout the semester. These learning objectives are aimed at core values of statistical thinking. If you would like to read more on statistical thinking, please see “Components of Statistical Thinking and Implications for Instruction and Assessment” by Beth L. Chance.

## Questions

1. What do you believe the purpose of this research is?
2. What is a literature review? How did the authors structure their literature review?
3. How did the authors collect their data?
4. What was the sample size? Use proper notation.
5. How many variables did the authors collect?
6. Do the authors provide any summary measures about their data? If so, report them below.
7. What (if any) visualizations did the authors include? Briefly summarize the information from at least one visualization.
8. Identify the authors' research questions. Write them below.
9. What method(s) did the author use to answer their research question(s)?
10. What statistical evidence do the authors report from their methods?

11. Summarize the authors' conclusions from their research study in 2-3 sentences. Assume you are reporting back to a neighbor who is highly interested in the topic, but has little statistical background.
  
12. Do you have questions or concerns about the study? Write them below. Post at least one question on the D2L discussion board "Case Study Questions" under your specific content. We will re-visit these (and your answers to other questions) throughout the semester.