

Math 247: Report on an Abstract (50 points)

Name: \_\_\_\_\_

**Due: Thursday, October 24, 2019**

Class Time: \_\_\_\_\_

***Include this cover sheet with the report.***

Task:

- (1) Do an internet search to find the abstract of a study on a topic of interest to you.

**Requirement:** The abstract has to include a P-value. If the abstract doesn't have this, then don't use it! Continue looking for an abstract has a P-value.

To search for an abstract, use Google.

Tips: Put the topic of interest and the word "abstract" and "P-value" in the search bar.

www.healthline.com has interesting articles there are references and links to actual studies.

Read through the abstracts that come up on your search. Make sure that you find an abstract of a single study and **not** a one for a "meta-analysis" or "review" of several studies. If you aren't sure, ask me or Alysha or one of the tutors to check!

Expect to look at quite a few abstracts before you find one on a topic that interests you and that also has a P-value.

- (2) Write an analysis paper (report) on the abstract.

**Requirements:**

- a) Make sure you answer all the questions given on the next page. You may have to do some digging to answer some of the questions.
- b) **As you read the abstract, highlight the terms or phrases you don't understand; for example:** "comorbidities" in the example paper. Look up those terms or phrases (use a Google search). Then give explanations of each of those terms at the end of the report. Be sure to include the source; i.e., the URL where you found an explanation that made sense to you.
- c) Type your response paper (double-spaced). Use Times New Roman font, size 12.
- d) **Print out the abstract and include it with your report.** Include the URL for the abstract and the date you accessed it.

**Answer all the questions given on the next page.**

**If information for answering a question isn't in the abstract, then mention that in your report.**

Make an attempt to guess or assume what the missing information is (see the example report for reference).

**Format the paper in "paragraphs" as shown in the example paper.**

**Check off each of the bullet points below to acknowledge that you've answered each of the questions.**

**Paragraph 1:**

- What is the topic of the study and why are you interested in this topic?

**Paragraph 2:**

- What is the research question that these investigators are trying to answer?
- What was their answer to the research question?

**Paragraph 3:**

- Describe the data collection by answering the following questions:
  - Who or what was observed.
  - Who collected the data? This would be the researchers, at the minimum. Note whether they collected data indirectly from, say, health or school records, or actual raw data directly from the people ("Experimental units" or "subjects") under study.
  - How did they collect the data?
  - Where were the data collected?
  - When were the data collected?

**Paragraph 4:**

- What variables were measured?
  - What was the treatment variable? This can also be called the "exposure" or the "independent" variable.
  - What was the outcome variable? This can also be called the "response" or the "dependent" variable.
- Were the subjects for the study chosen as a random sample?
  - Discuss whether the results can be extended to the general population based on whether the sample is random or not.
- Was the study observational or a controlled experiment? Explain how you know.
  - Was there a comparison group?
  - Based on whether the study was observational or an experiment, write whether you can assume a cause-and-effect relationship.
- To what population, if any, does the conclusion apply?
- Describe any possible confounding variables the researchers controlled for.
- Describe one possible confounding variable the researchers did NOT control for.

**Paragraph 5:**

- What type of statistical analysis was used? Even if you aren't familiar with the method being used, write it in your response paper.
- What was the result of the statistical analysis? Include the P-value in this answer and explain what this means in the context of the study.

**Paragraph 6:**

- What did you learn from this abstract that you didn't know before?