

Work Problems, Chapter 1

Suppose that Starbucks' wanted to conduct a study to determine whether men and women differ in the amount of money they spend when they visit one of their stores. They hired a researcher to collect these data from the first 100 customers to visit one of their stores in New York City one day. Forty of the customers were men and 60 were women. Please answer the following questions based on this information.

1. What kind of sampling method did the researcher use?

Convenience. This was not a systematic approach to selecting a sample. It was simply collecting data from the first one hundred customers to visit a particular store.

2. What is/are the sample(s) in this study?

Two samples: 40 men and 60 women.

3. What is/are the population(s) in this study?

This one is a little tricky. According to the research question, there are two populations: Men and women. But according to the way the sample was selected, the populations are a bit narrower. One interpretation is that the populations are men and women in New York City. Or perhaps it is men and women who go to Starbucks in NYC early in the morning. Really, the populations are defined broadly by the research question or more narrowly by who, or what, the samples represent.

4. Do you think the results of this study will generalize to the population(s)? Why or why not?

It is unlikely that these samples represent the broad populations of all men and women. Residents of New York City are often wealthier than residents of other cities, because the cost of living there is so high. Therefore, this sample may spend more money at Starbucks than the men and women in the broader populations, on average.

5. What are the independent and dependent variables in this study?

Independent variable: Gender

Dependent variable: Amount of money spent at Starbucks

6. What type of measurement does each of these variables use (i.e., nominal, 22 ordinal, interval, ratio)?

Gender: Nominal/categorical

Money spent: Interval/ratio

7. What kind of study is this (i.e., experimental, quasi-experimental, correlational)?

This is a correlational study. There are no variables being manipulated so it is not experimental or quasi-experimental.

8. What are the statistic(s) and parameter(s) of interest in this study?

Statistic: Amount of money spent at Starbucks by these two samples.

Parameter: Amount of money spent at Starbucks by these two populations.

9. How could you re-design this study to get results from sample data that would be more generalizable to the population(s)?

One method for improving the generalizability of the results would be to select random samples of men and women who shop at Starbucks on a given day. This would require including all of the Starbucks stores and all of the Starbucks customers as *possible* members of the two samples. As you can imagine, this would be difficult and expensive. Another approach would be to try to select a more representative sample by targeting specific Starbucks locations in various regions of the country and selecting customers at various times of the day.