

Qualitative versus Quantitative

a) Consider the students in your class as observational units. Classify each of the following as qualitative or quantitative. If categorical, indicate if it is binary.

- How many hours you have slept in the past 24 hours

- Whether or not you have slept for at least 7 hours in the past 24 hours

- Number of Harry potter books you have read

- How many states you have visited

- Handedness (which hand you write with)

- Political viewpoint (left-wing, independent, or right-wing)

- Day of the week on which you were born

- Average study time per week

- How many birthday cards you received on your last birthday

A research question looks for patterns in a variable, compares a variable across different groups or looks for a relationship between variables. Some research questions you could investigate with the data on the above variables include:

- Do most students in your class get at least 7 hours of sleep on a typical night?

- Do females tend to study more than males?

- Is there an association between how much students study per week and how much sleep they get?

Though these are phrased as questions, they summarize the variable(s) across the observational units rather than being posed to each individual observational unit.

b) Suggest two other research questions that you could investigate using the variables in part a.
Research question 1 –

Research question 2 –

c) Suggest additional variables that you could record about yourself and your classmates, and propose two research questions you could address using those variables:

Variable 1 –

Variable 2 -

Variable 3 –

Variable 4 –

Research question 3 –

Research question 4 –