

MAT 223, Discussion Questions 8.28

1. Give an example of a source of an educational study that would be considered
 - a. More credible

journal article

- b. Less credible

news article, blog post (by non-educator)

2. What are some variables we might want to know about in an educational study? (Give 3-5.)

test scores, appreciation for teachers or materials, improvement on some measure, age appropriateness

answers will vary

3. What could be a source of bias in an educational study? Given an example of one that could be controlled pretty easily, and one that might be harder to control for.

Socio-economic level (studies only done in private schools)
for instance

parental involvement

answers will vary

4. Do you think that processing errors or non-adherence could affect an educational study? If so, how? If not, why not?

yes. people processing data are human and prone to make errors; non-adherence could be related to dropping out of program, not doing homework, parents pulling kids out of study.

5. What kind of things should we be careful about in conclusions of studies? (Think about clickbait headlines.)

making a strong claim not supported by data or based on too small a sample; reinforcing prejudices w/o controlling for confounding variables
(too high p-value)

6. Bring in a copy of an educational study from one of your previous courses or that you find online or in the library. Write a short paragraph critiquing the value of the study using what we learned in this chapter.

Answers will vary

7. Read this article <http://www.statslife.org.uk/opinion/2389-how-can-we-remedy-the-gender-imbalance-in-maths-and-stats> and be prepared to discuss it in class.