

# Experimental Design

- What is the research question? What is the hypothesis? What is the corresponding Null Hypothesis?
- What information was collected? How does the information collected relate to the research question(s)?
- What controls can you think of (both positive and negative)? What controls did the authors do?
- What would it take to convince you? (E.g. what level of significance, what sample size, what effect size, what complementary experiment)?

# Data Collection

- What is the sample size? What did the authors do to convince you that it is large enough?
- How were participants/samples selected and divided into groups?
- Are confounding factors controlled for? What biases might there be in experimental setup, data collection, and sampling, and have those been accounted for?

# Data reporting

- Do you understand what all terms and variables mean?
- What units are used?
- Are all data shown? Is there something you feel is missing?
- Do authors give you access to the raw data set?