1. How do you control for biases?

To control for biases, there are various strategies such as randomization, blinding, and ensuring sample representativeness.

Randomization: Assign subjects randomly to different groups to evenly distribute known and unknown confounding variables.

Blinding: Keep study participants, researchers, or both unaware of group assignments to prevent bias in treatment administration or outcome measurement.

Matching: Pair participants across groups based on similar characteristics to control for those variables.

Statistical Control: Use statistical methods such as regression to adjust for variables that might influence the outcome.

Selection of Participants: Ensure the sample is representative of the population from which it was drawn to avoid selection bias.

Validation of Instruments: Use reliable and validated instruments or measurements to reduce measurement bias.

2. What are confounding variables?

Confounding variables are factors other than the independent variable that you are interested in, which might affect the dependent variable. If not controlled, confounding variables can cause you to incorrectly infer the relationship between the independent and dependent variables.

3. What is A/B testing?

A/B testing, also known as split testing, is a method used in marketing and product development to compare two versions (A and B) of a webpage, advertisement, or other elements. It involves randomly assigning users to either version and measuring their responses to determine which version performs better in achieving the desired outcome.

4. When will you use Welch t-test?

The Welch t-test is used when comparing the means of two independent samples and the assumption of equal variances is violated. It's more robust than the Student's t-test in such cases and can provide more accurate results.

5 .

A math problem on a piece of paper

Description automatically generated

6. A close-up of a paper with mathematical equations

Description automatically generated