Case 20: Evaluating User Satisfaction with Three Software Interfaces

A tech company wants to evaluate user satisfaction with three different software interfaces (Interface A, Interface B, and Interface C) designed for a new application. They recruit 20 participants and ask each participant to use all three interfaces in randomized order. After using each interface, participants rate their satisfaction on a 5-point Likert scale (1 = Very Dissatisfied, 5 = Very Satisfied). The company wants to determine whether there are significant differences in satisfaction between the three interfaces and which interface has the highest level of satisfaction. (download data)

Case:

Initial Questions

1. What are the research objectives?

2. What are the statistical questions?

3. What is the response variable, and what is the data type of the response variable?

4. What are the explanatory variables of interest?

5. Are there covariates?

6. What is the population of interest?

7. What is the subject, and what is the number of distinct subjects?

8. Are there subject-level data?

9. Are response variables dependent (repeated measures / clustered subjects)?

10. Are the subjects selected randomly?

11. Are the subjects randomly assigned to different groups?

Initial Thoughts

