

Stat 61 In-Class Worksheet

Original group members:

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Part 1

1. A rehabilitation center researcher was interested in examining the relationship between physical fitness prior to surgery of persons undergoing corrective knee surgery and the time required in physical therapy until successful rehabilitation. Data on the number of days required for successful completion of physical therapy and prior physical fitness status (below average, average or better) were collected.
 - Is this study experimental, observational, or mixed?
 - What is the basic unit of study?
 - Identify all factors, factor levels, and factor-level combinations. Also identify all numeric variables.
 - Write a null and alternative hypothesis test that will help answer the research question.

Part 2

1. In an experiment to study the effect of the location of a product display in drugstores of a chain, the manager of one of the drugstores rearranged the displays of other products so as to increase the traffic flow at the experimental display. Does this action potentially lead to either selection bias or measurement bias?
2. In a study of the effect of size of team on the volume of communications within the team, can a double-blind procedure be utilized? A single-blind procedure?
3. Give an example of an experiment where a control group would not be necessary.