

Video 15 Experimental Design

1. Why is the study of the effect of humans on the coral reefs not an experiment?

Human populations are not controlled by researchers, nor is their interaction with coral reefs. Their interaction was not controlled. Instead researchers are only observing the interaction.

2. Who were the subjects in the Glucosamine/Chondroitin study? What did researchers want to find out?

The researchers studied people with knee arthritis and wanted to see if dietary supplements (Glucosamine or Chondroitin) or prescription medication or placebo could help relieve their joint pain.

3. Why were subjects randomly assigned to the treatments?

The subjects are randomly assigned because then the groups can be similar before the treatment is applied to them. It helps to balance the effect of any unknown or uncontrollable variation within the groups

4. Dr. Confound conducted a very badly designed experiment on mood-altering medication. List some of the problems with his experiment.

- The dosages of the medications were not controlled or standardized, which could affect the results.
- Medications were not randomly assigned, which could create bias in the results.
- The researcher interacted with the patients and sympathized with their responses, which could influence their moods and responses.
- The researcher only recorded the higher ranking of mood, rather than the exact responses of the patients, which could lead to inaccurate data.