Deliberately imposes a treatment on individuals in order to observe their responses. The purpose of an experiment is to study whether the treatment causes a change in response.

Anything that a researchers administers to individuals in order to change their response.

**Observational Studies VS. Experiments**

**What is the difference between observational studies and experiments?**

*An observational study does not interfere, but an experiment interferes with a treatment.*

**Example 1:** Give an example of a question about dogs and their behavior that would best be answered by an...

A. Observational Study

**Do dogs bark more inside or outside?**

B. Experiment

**Do dogs bark less when placed in a Kennel?**

**Treatment:** Kennel

**Example 2:** A study for cell phones and the negative affects of test scores looked at a group of 400 high school students who took Statistics and had a Smartphone. The investigators matched each HS student with a person of the same sex, age, and race, but one of them did not own a Smartphone.

Result: “Our data suggests that having a Smartphone negatively impacts student test scores since they tend to be distracted more.”

**Is this an observational study or experiment? Why?**

Observational study bc researchers did not interfere. (Did not give or take away a phone)

**Summary**

Summarize the lesson in your own words (this is to help you review later)