

# Lack of Control Group

## What is a Control Group?

A control group is a group in an experiment that is not being tested and is used to compare the results of the other group to. In a valid experiment, there will be a group where the variable is being manipulated (independent variable) and a group where variable stays the same so the results can be compared.

# Example #1 of a Control Group

Sammy and Landon wanted to test which fishing bait was the best to catch fish in the intracoastal. Usually, they used a fishing lure to catch fish. This time, they tried fishing with three different types of baits to see which ones caught the most fish.

- Control Group Fishing lure
- Independent Variable Types of bait
- Dependent Variable How many fish they caught with each type of bait

# Example #2 of a Control Group

Kaley was training for a race. She was having a hard time running in the afternoon because of the heat. She decided to start running in the morning when it was cooler. Kaley then compared how far she was able to run in the morning compared to the distance she was running in the afternoon.

- Control Group      Afternoon Runs
- Independent Variable      Morning Runs
- Dependent Variable      Distance of morning runs

# Design Your Own!

Now it's time to design your own experiment with your group! In this section, you will create a question to test as well as identify a **control group**, **independent variable**, and **dependent variable**. You will not actually be testing this question. Write down your experiment, groups, and variables on chart paper. At the bottom, in a paragraph, explain what would happen in this experiment if there was not a control group.

# Quick Check!

Answer the following question with your group.

Read the following scenario with your group and answer the question.

Sandy wanted to see which type of running shoes were the most comfortable to run longer distances in. Right now, she owned a pair of Adidas that she ran in, but was not happy with them. She bought two other pairs of shoes to test them to see which was the most comfortable for running three miles.

**In this scenario, what is the control group?**

- A. The two new pairs of running shoes.
- B. The distance Sandy ran in comfort.
- C. Sandy's current running shoes.
- D. Only one pair of the running shoes.

Your Turn!

**Complete the multiple choice quiz to show your knowledge about Control Groups!**

