

Recognizing Controlled Trials

The video highlighted the benefits of controlled trials, particularly using randomization and double-blinding. However, there are lots of ways to perform experiments, and sometimes a controlled trial might not be appropriate or even feasible.

In this exercise, you'll need to classify each scenario based on whether it describes a controlled trial or another type of experiment.

The screenshot shows a web-based exercise interface. On the left, a sidebar contains the exercise title 'Recognizing controlled trials', a brief description, instructions to place scenarios into buckets, a 'Take Hint (-30 XP)' button, and a feedback section. The main area features a purple box at the top with the instruction 'Drag the Items Into the correct bucket' and a dashed box labeled 'Drop items here'. Below this are two columns: 'Controlled Trial' and 'Other type of experiment'. The 'Controlled Trial' column contains three scenarios: 'Randomly assigning people to a specific diet or to continue eating their normal diet and analyzing differences in blood sugar levels', 'Performing crash safety tests on current and upgraded versions of a car and analyzing how much damage is sustained by each version', and 'Displaying one of two versions of a company website to visitors and monitoring time spent on the site for each version'. The 'Other type of experiment' column contains three scenarios: 'Tracking the diets of 1000 people over 10 years and monitoring how many of the group develop heart disease', 'Investigating what proportion of people aged 20 to 35 like strawberry ice cream', and 'Collecting survey data from 500 people to find out their smoking status and whether they have had cancer'. At the bottom right, there is a 'Submit Answer' button.

Learn / Courses / Introduction to Statistics

Course Outline

Daily XP 2400

Exercise

Recognizing controlled trials

The video highlighted the benefits of controlled trials, particularly using randomization and double-blinding. However, there are lots of ways to perform experiments and sometimes a controlled trial might not be appropriate or even feasible.

In this exercise, you'll need to classify each scenario based on whether it describes a controlled trial or another type of experiment.

Instructions 100XP

- Place each scenario into the bucket describing the correct type of experiment.

Take Hint (-30 XP)

Incorrect

Website visitors are controlled by being split into one of two groups and shown a different version of a website based on their group.

Did you find this helpful? ☒ Yes ☐ No

Drag the Items Into the correct bucket

Drop items here

Controlled Trial

- Randomly assigning people to a specific diet or to continue eating their normal diet and analyzing differences in blood sugar levels
- Performing crash safety tests on current and upgraded versions of a car and analyzing how much damage is sustained by each version
- Displaying one of two versions of a company website to visitors and monitoring time spent on the site for each version

Other type of experiment

- Tracking the diets of 1000 people over 10 years and monitoring how many of the group develop heart disease
- Investigating what proportion of people aged 20 to 35 like strawberry ice cream
- Collecting survey data from 500 people to find out their smoking status and whether they have had cancer

Submit Answer

Answer

Controlled Trial:

- Randomly assigning people to a specific diet or to continue eating their normal diet and analyzing differences in blood sugar levels.
- Performing crash safety tests on current and upgraded versions of a car and analyzing how much damage is sustained by each version.
- Displaying one of two versions of a company website to visitors and monitoring time spent on the site for each version.

Other Type of Experiment:

- Tracking the diets of 1,000 people over 10 years and monitoring how many of the group develop heart disease.
- Investigating what proportion of people aged 20 to 35 like strawberry ice cream.
- Collecting survey data from 500 people to find out their smoking status and whether they have had cancer.

Explanation of the Answer

1. ****Controlled Trials:****

- Controlled trials involve manipulating one or more variables and observing the outcomes in a controlled environment.
- Examples include randomization (e.g., assigning diets), experimental comparisons (e.g., crash safety tests), or controlled experiments (e.g., website version tests).

2. ****Other Types of Experiments:****

- Observational studies involve tracking or collecting data without manipulation (e.g., diet tracking, surveys).
- Such studies do not involve controlled environments or experimental setups, as they focus on observing real-world behaviors or trends.