

An experiment was designed to see whether a program of special stepping and foot placing exercises for 12 minutes each day could speed up the process of babies learning to walk. As part of this study, 12 baby boys were randomly assigned to the special exercise group or to the "exercise control" group. For the control group, parents were told to make sure their infant sons exercised at least 12 minutes per day. But they were not given any special exercises to use, and they were not given any other instructions about exercise. The researchers recorded the age, in months, when each baby first walked without help.

What are the treatments? What is the response?

Treatment → special exercise vs non-special exercise

R.V. → Age when baby walked without help.

Does this study have the three characteristics of a well-designed experiment?

Could it have been double blind?

Is the placebo effect a possible issue here?

For a science project, Brian wanted to determine whether eleventh-graders did better when they took a math test in silence or when Mozart was being played. Twenty-six randomly selected eleventh grade students were randomly divided into the two treatment groups. Part of Brian's results are in the table below.

Mozart (percentage correct)	Silence (percentage correct)
65	44
80	70
72	68
68	58
38	58
58	47
45	54
42	44
58	61
81	61
40	9
41	52
27	30
Mean = 55	Mean \approx 50.46

What are the treatments? What is the response?

Treatments: Mozart vs. Silence
R.V. - Test score

What type of study is this? Explain.

Sample Survey
Randomly select a smaller group from a larger population.

What exactly can you conclude from this study?

11th grade students that listen to Mozart during quizzes will score better