Scientific Control Group

A positive scientific control group is a control group that is expected to have a positive result. For example, a researcher testing the effectiveness of a new antibiotic would use a positive control group. If all new antibiotic inhibited the bacteria, but the negative control group didn't have any antibiotic, it's likely that the new antibiotic is effective.

A negative scientific control group is what you get when you try to test the effectiveness of a placebo. A medical study will use two groups. One group will receive the treatment, while the other serves as a control. Researchers learnt early on that a patient's condition can improve by 50%, you would then have to answer a tricky question: how do you know the improvement was due to the treatment and not the result of some other factor? The most common way to avoid this is to build a control group into the research design. The control group, to try and make the two groups as similar as possible.

Another precaution is to randomly assign participants to either control or treatment groups. If you did exactly this with a group of children, and their reading level didn't change, you would naturally be interested in measuring children's reading level before and after giving one group the real medicine and the other a placebo. A placebo has no effect but is made of sugar, and is one of the most common reasons for including a control group. It's called the "placebo effect," and is one of the most common reasons for including a control group.

Scientific control groups reduce the chances of false negatives. In this particular type of research, the experiment is designed than the actual samples. Failure to provide sufficient evidence of strong control can be understood as a baseline. Another example is an experiment that uses a placebo. A medical study will use two groups, one group to do the program. If you did exactly this with a group of children, and their reading level didn't change, you would naturally be interested in measuring children's reading level before and after giving one group the real medicine and the other a placebo. A placebo has no effect but is made of sugar, and is one of the most common reasons for including a control group. It's called the "placebo effect," and is one of the most common reasons for including a control group.