

Explanatory research: draws cause-and-effect relationships between variables.

Independent variable: variable that a researcher manipulates (changes) to create experimental groups (conditions). It should affect subsequent behavior or mental processes.

Dependent variable: behavior that results from the independent variable.

Random assignment: uses a random process, such as flipping a coin, to put members of a sample in one of the groups (conditions) in an experiment. Its purpose is to minimize preexisting differences among members of the sample so that researchers can be confident of the effects of the independent variable.