

2. Why is random assignment a critical component of an experiment?

A: Random assignment allows researchers to isolate the effects of the independent variable on the dependent variable. It does so by arbitrarily placing members of the sample into one of the groups created by the independent variable. Therefore, the differences between people in the sample are minimized, allowing researchers to connect the effects of the independent variable to the dependent variable.

3. Why must an experiment contain at least two groups?

A: If an experiment contained only one group, there would be no way to compare scores on a dependent variable. To take a simple example, I am 6' 2" tall. Am I a tall person? We cannot answer this question without something with which to compare my height. Compared with an average man (who is about 5' 9" tall), yes, I am a tall person. Compared with most professional basketball players, no, I am not a tall person.