

1. What do you do in order to exclude biases?

Bias can be reduced with the help of randomization and the like of characteristics. Repeating the studies previously conducted which helps reduce biases and the research process and statistical method can represent the population.

2. What are confounding variables?

Confounding factors, in turn, are variables that affect the dependent and independent variables. The third form of distorting the true relationship between the vital variables of importance.

3. What is A/B testing?

A/B testing is a technique of putting two versions of one variable into a comparison. It enables us to run the test on different variables and understand which one can be best.

4. At which time the Welch t-test will be?

The Welch t-test is used when the two groups have discrepant variances and variations. This approach is relatively precise for the number of factors that are unadjusted with great variation and some of them.

$$5) M=6 \quad n=50 \quad \bar{x}=6.5 \quad x=6.05 \\ s=1.2$$

$$t = \frac{6.5 - 6}{\sqrt{\frac{1.2^2}{50}}} = 2.946 \\ \checkmark \text{reject null} \quad -1.645$$

$$\text{critical val} = 1.676$$

$$6) A \quad | \quad b \\ \bar{n}_1=25 \quad | \quad \bar{n}_2=30 \\ \bar{x}_1=75 \quad | \quad \bar{x}_2=78 \\ s_1=8 \quad | \quad s_2=7$$

$$t = \frac{75 - 78}{\sqrt{\frac{8^2}{25} + \frac{7^2}{30}}} = -1.465 \quad df=48.1$$

$$\sqrt{\frac{8^2}{25} + \frac{7^2}{30}} + \text{val} = 2.01$$

$$-1.465 > -2.01$$

