

Psychological question

Psychology



**ASSIGN
BUSTER**

Psychological Question Affiliation: Question Does the use of tutorials in a statistics course equally improve male and female students' knowledge?

Variables

- a. Number of male and female Students
- b. Male student knowledge in statistics before the tutorials
- c. Male student knowledge in statistics after the tutorials
- d. Female student knowledge in statistics before the tutorials
- e. Female student knowledge in statistics after the tutorials

Application of z-test

A z-test is applied to determine whether sample populations' means differ with known variances. The known variances should include standard deviation to showcase how samples contrast or assimilate with each other.

Application of t-test for independent samples

The application of the t-test in the testing of whether there are differences between populations thus the use of t-test requires the use of independent means of the samples. Independent means shows that the samples do not overlap such that a student cannot be both a male and female. In this case, the t-test for independent means of the samples aims at determining whether the average difference between samples point that samples come from two different populations. In this case, male statistics students and female statistics students ($\mu_1 - \mu_2 = 0$).

Application of t-test for dependent samples

The application of the t-test for dependent samples aims at investigating whether there is a connection or a differences between samples sharing a dependent variables. In this case, the use of tutorials for college statistics students is dependent or shared phenomenon. The application of t-test for <https://assignbuster.com/psychological-question/>

the dependent samples makes use of independent means in the hypothesis tests regarding whether average difference between the samples indicates students come from populations where application of tutorials affect statistical performance or not.

References

Little, T. (2014). *The Oxford Handbook of Quantitative Methods in Psychology: Foundations*. Oxford University Press