

# Nonparametric tests research paper sample

[Religion](#), [Bible](#)



## **DQ One Week Five**

Nonparametric test are used by researchers when the collected data is categorical or ranked rather than quantified numerically. Unlike parametric tests, nonparametric test does not require certain assumptions, which make it more flexible. For, example the assumption that the data is normally distributed is relaxed when conducting nonparametric tests. Nonparametric tests are commonly used in psychological research because, the data collected often entails ranked responses; the data collected is non-numerical and is not normally distributed.

There are various nonparametric tests that can be used. When analysing a set of differences using the same sample, the Wilcoxon matched pairs signed-rank test can be used. For example, when researcher is interested in finding out if there is a difference in employee perceptions of whether they have the training necessary to do their job before or after a new training program is implemented. The data to be collected is qualitative and has to be ranked to be analysed statistically. The respondents can be asked to rate their agreement on whether they believe they have the necessary training to do their job using a five-point Likert-type scale. The data is then analysed using the Wilcoxon matched pairs signed-rank test to obtain the p-value to determine if it is statistically significant. There are several softwares including SPSS that can be used to determine the p-value for the Wilcoxon matched pair's signed-rank test.

When comparing two samples, which are independent of each other, then the Mann-Whitney U test or the Wilcoxon rank-sum test can be used. For

example, a researcher may be interested in finding out if there is a difference in employees' perceptions of whether they have the necessary training between racial groups. In this case, the data collected is also qualitative and has to be ranked to be analysed statistically. The Whitney U test or the Wilcoxon rank-sum test will then be used.

## **References**

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3, illustrated ed.). New York: Sage Publications.

Jackson, S. L. (2011). *Research Methods and Statistics: A Critical Thinking Approach* (4 ed.). London: Cengage Learning.