

Kruskal-Wallis test: non-parametric one-way analysis of variance. The Kruskal-Wallis test is used to compare more than 2 groups of independent data. The overall test tests the H0 that all groups have the same median. When this H0 is rejected, the program continues with a multiple comparison of groups, in which all pairs of groups are compared with each other. The overall test can be found in all statistical packages, the multiple comparison extension is based on the description in Conover. When KruWal is used on a data set with only two groups, the result is the same as that of a Mann-Whitney test.

FAQs

- **I tried to import a data into KruWal: the error message was "invalid variant type conversion".**
This error message indicates that the program is trying to convert a text that is not a number into a number. This most often happens because: 1: you gave the wrong input range or 2: the decimal separator in Excel is different from the one in Windows. KruWal works with the decimal separator in Windows, so you have to set Excel to use the system separator (in Excel: options menu - international Tab in the options dialog).
- **The multiple comparison test only gives significant (*) or not (NS). Can the program give me exact p-values for these comparisons ?**
Sorry, this is not possible for such a test. In the multiple comparison the difference between each pair is compared to a critical value for this difference based on the significance value you have given. Exact p-value would require comparison with a probability distribution which is not available. You can repeat the multiple comparison with different significance levels.
- **Q.**
A.

References

- Conover, WJ. Practical nonparametric statistics. 2nd edition, 1980: 229-237. John Wiley and Sons, New York

Version History

KruWal version 10.3, March 2012

- Corrected error that made that last column of input was not treated correctly
- NOTE:
- This error was introduced in April 2011 and will have affected the result
- when the input data had to be sorted by grouping variable
- and the test column was the last column.

KruWal version 10.2, February 2012

- Updated handling of scientific notation (n.nnE-n)
- Corrected replacement of missing values with defined missing value

KruWal version 10.1, April 2011

- Updated handling of decimal separators
- Repaired transfer of missing value label to main program

KruWal version 10.0, January 2011

- Updated communication with Excel
- Added check for version update (uses Windows Registry)

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