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1. How to enter data to do a Kruskal-Wallis test.

For general advice on data entry see the "How to enter data into SPSS" help sheet.

Kruskal-Wallis tests are used on unrelated data: Data for the dependent variable go in one column and data for the independent variable goes in another. In this example, the dependent variable is *Nitrogen* and the independent variable is *Site*. *Nitrogen* is measured as % nitrogen of dry weight and is scale level of measurement. *Site* refers to the area within the reed bed that the samples of reeds were taken from measured at the nominal level: either 1 (value label = Site 1), 2 (value label = Site 2) or 3 (value label = Site 3).

Variable View

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2		📮 🗠 1	ช 🎬			No. No.	- 4	3 🔠		AB6		
	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role	
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2	Nitrogen	Numeric	8	2	Nitrogen Conte	None	None	8	Right	I Scale	O Target	
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Data View (View – Value Labels off)

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2	1	2.88			
3	1	3.25			
4	1	2.64			-
5	1	3.28			
6	2	3.06			
7	2	2.60			
8	2	2.55			
9	2	2.42			
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1	Site 1	2.92			-
2	Site 1	2.88			
3	Site 1	3.25			
4	Site 1	2.64			
5	Site 1	3.28			
6	Site 2	3.06			
7	Site 2	2.60			
8	Site 2	2.55			
9	Site 2	2.42			
10	Site 2	2.35			
	4	***			•
Data View	/ariable View				
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2. How to do a Kruskal-Wallis test

To get SPSS to conduct a Kruskal-Wallis test :

Open your data file.

Select: Analyze - Nonparametric Tests - Independent Samples...

This will bring up the **Nonparametric Tests Two or More Independent Samples Tests** window which has three tabs:

1. Objective. Select Customize analysis.

2. Fields. Either use the default Use predefined roles or select Use custom field assignments and send your dependent variable (in this case *Nitrogen*) to the Test Field box and your independent variable (in this case *Site*) to the Groups box.

3. Settings. Select Customize tests, then Kruskal-Wallis 1-way ANOVA (k samples) in the Compare distributions across Groups. Select None from Multiple Comparisons drop down menu or leave it as the default, All pairwise.



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entifies differences I rmal distribution.	etween two or more groups using nonparametric tests. Nonparametric tests do not assume your data follow th
Vhat is your objectiv	e?
ach objective corre	sponds to a distinct default configuration on the Settings Tab that you can further customize, if desired.
O Automatically	compare distributions across groups
Compare me	diang across groups
Customize ar	
Contract of	un yana;
Description	allows you fine-grained control over the tests performed and their options. Other tests available on the Settings
ab are the Kolmogo	No-Smirnov, Noses extreme reaction, and Wald-Wolfowitz for 2 samples, and the Jonckheere-Terpstra for k il confidence interval (Hodges-Lehmann estimate) is also available for 2 samples.



Press **Run** on any and then double click on the **Hypothesis Test Summary** table in the **Output** window to bring up the **Model Viewer** window. This will produce the following in the **Output** window.

