## Module 4: Wilcoxon signed-rank test

The test is performed by choosing Analyze > Nonparametric Tests > One-Sample and complete the dialog boxes as shown below.

## From the Objective tab Select Customize analysis



In the Fields tab move our variable of interest into Test Fields, as shown below.


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In the Settings tab, select Customize Tests and tick Compare median to hypothesized (Wilcoxon signed-rank test) and enter the median under the null hypothesis


After selecting Run the following is the only immediate output.

Hypothesis Test Summary

| Null Hypothesis | Test | Sig. | Decision |
| :--- | :--- | :--- | :--- |
| $\mathbf{1}$The median of Water usage (litres <br> per day) equals 450.00. | One-Sample <br> Wilcoxon Signed <br> Rank Test | .014 | Reject the <br> null <br> hypothesis. |

Asymptotic significances are displayed. The significance level is .05 .

To get more you have to double click on the above in the SPSS Output window. This opens the Model Viewer window which is an interactive tool for displaying the available model views and editing the look of the model views.

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The output in the right hand panel gives us more information on the test. The left hand panel is referred to as the Main view whilst the right hand panel is referred to as the Auxiliary view.

Edit > Copy Main View or Edit > Copy Auxiliary View if you want to paste them into say a Word document.

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One-Sample Wilcoxon Signed Rank Test


| Total N | 20 |
| :--- | ---: |
| Test Statistic | 156.000 |
| Standard Error | 24.842 |
| Standardized Test Statistic | 2.456 |
| Asymptotic Sig. (2-sided test) | .014 |

