

Chapter 6: Non-parametric models

Self-test answers



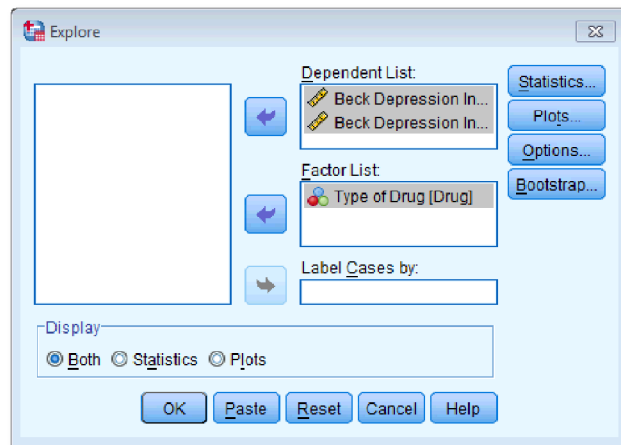
SELF-TEST What are the null hypotheses?

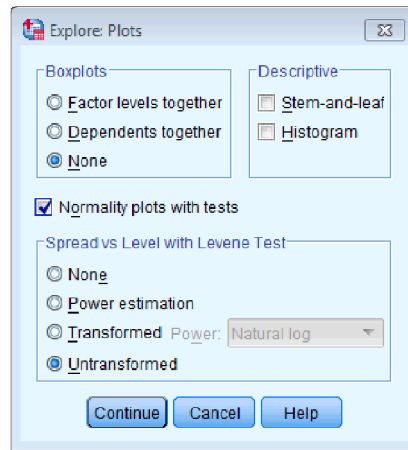
1. There is no difference in depression levels between those who drank alcohol and those who took ecstasy on Sunday.
2. There is no difference in depression levels between those who drank alcohol and those who took ecstasy on Wednesday.



SELF-TEST Carry out some analyses to test for normality and homogeneity of variance in these data.

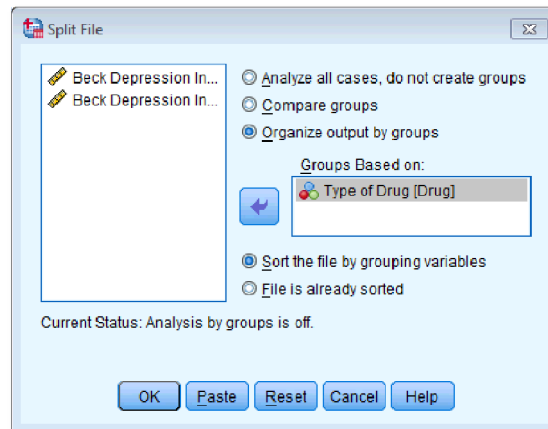
To get the outputs in the book use the following dialog boxes:





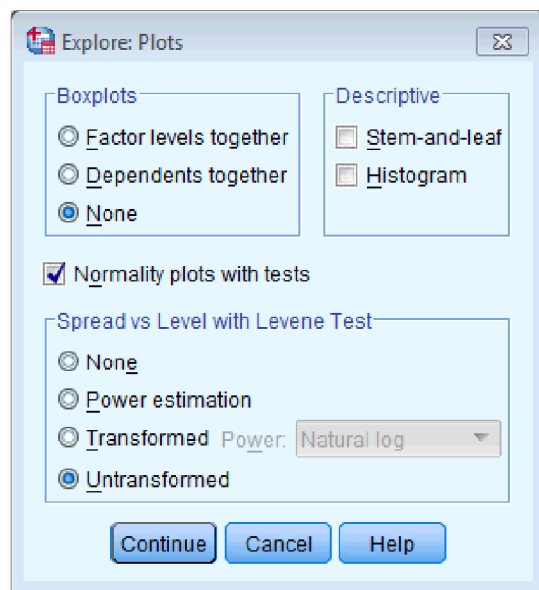
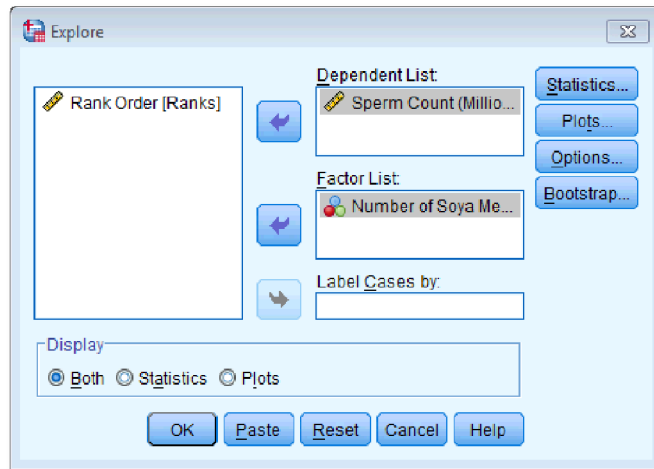
SELF-TEST Split the file by **Drug**.

To split the file by drug you need to select **Data** > **Split File...** and complete the dialog box as follows:



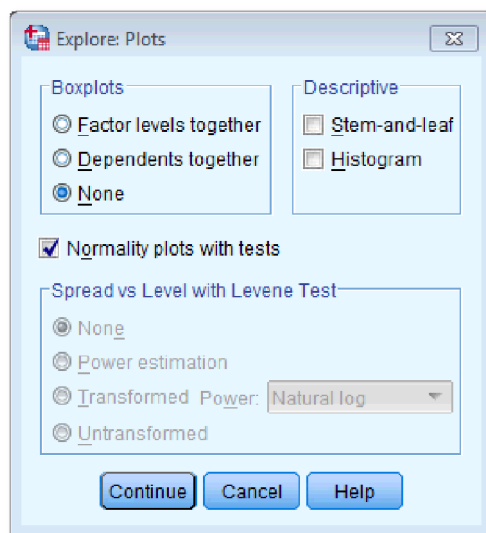
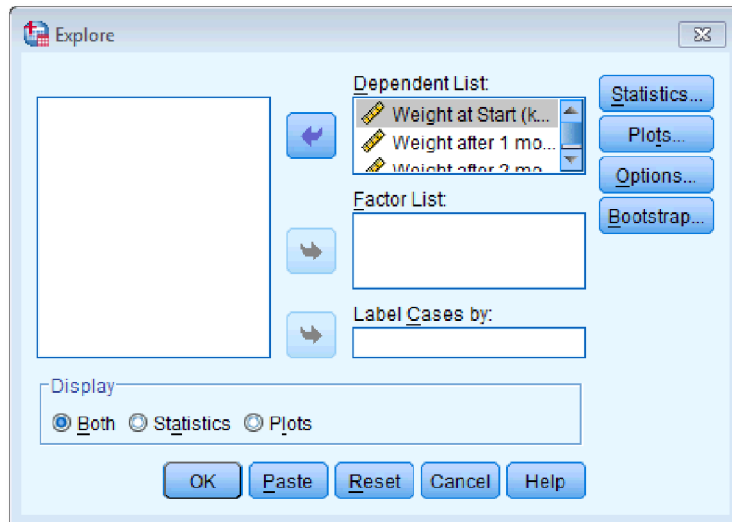
SELF-TEST See whether you can enter the data in Table 6.3 into SPSS (you don't need to enter the ranks). Then conduct some exploratory analysis on the data.

To get the outputs in the book use the following dialog boxes:



SELF-TEST Using what you know about inputting data, try to enter these data into SPSS and run some exploratory analyses.

To get the outputs in the book use the following dialog boxes:



SELF-TEST Carry out the three Wilcoxon tests suggested above.

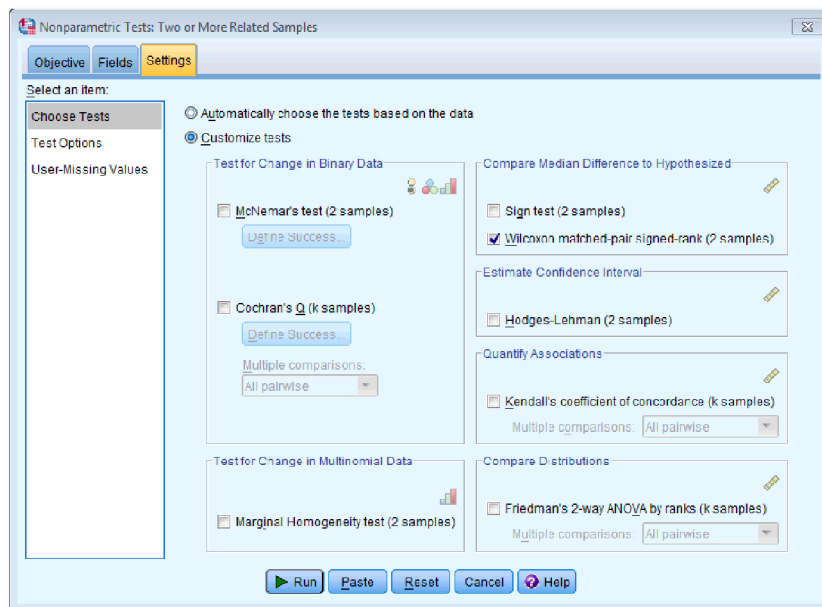
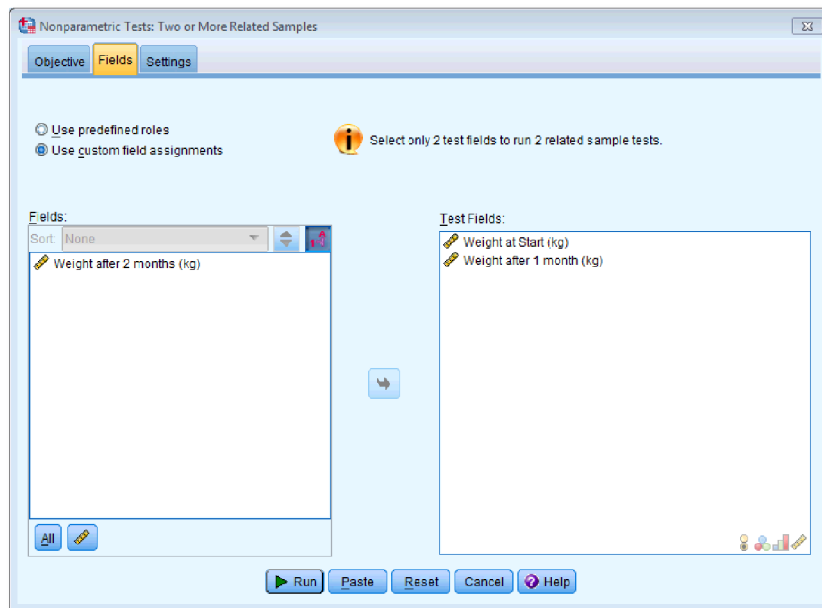
You can do the Wilcoxon tests by selecting the pairs of variables for each comparison in turn and transferring them across to the box labelled *Test Fields*. To run the analysis click on [▶ Run](#)

You have to do each of the Wilcoxon tests separately, you cannot do them all in one go.

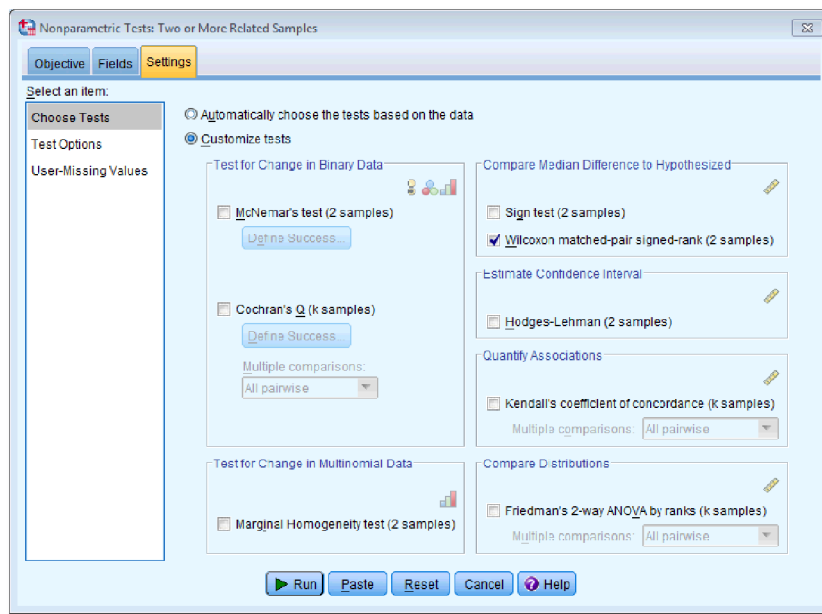
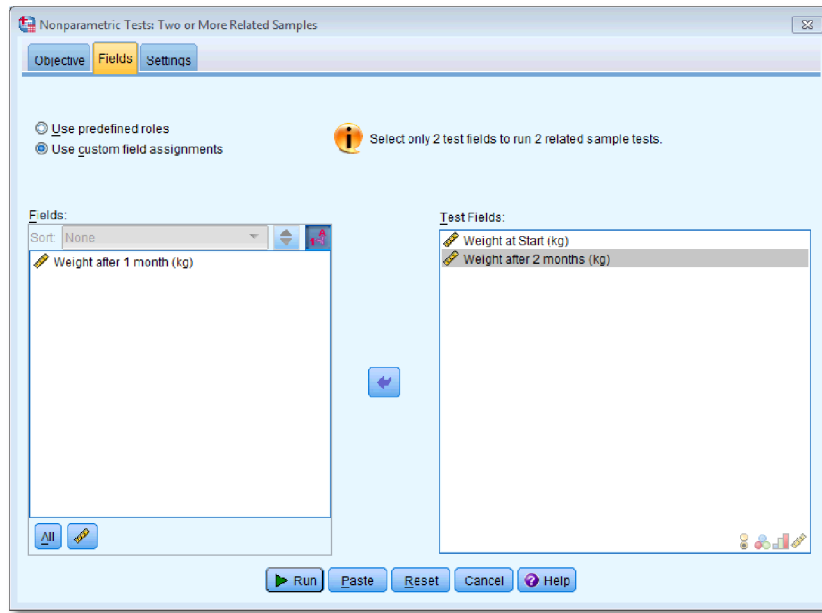
To run a Wilcoxon test, first of all select [▶ Run](#). When you reach the [Objective](#) [Fields](#) [Settings](#) tab you will see all of the variables in the data editor listed in the box labelled *Fields*. If you assigned roles for the variables in the data editor [● Use predefined roles](#) will be selected and SPSS will have automatically assigned your variables. If you haven't assigned roles then [● Use custom field assignments](#) will be selected and you'll need to assign variables yourself.



To do the first test, select **Weight at start (kg)** and **Weight after 1 month (kg)** and drag them to the box labelled *Test Fields* (or click on [▶](#)). The completed dialog box is shown below. Next,

select the **Objective** **Fields** **Settings** tab to activate the test options. You can let SPSS pick a test for you (Automatically choose the tests based on the data), but you have more options available if you select Customize tests. To do a Wilcoxon test check Wilcoxon matched-pair signed-rank (2 samples) To run the analysis click on .



To run the second Wilcoxon test you do the same thing as before, but this time selecting **Weight at start (kg)** and **Weight after 2 months (kg)** and dragging them to the box labelled *Test Fields* (or clicking on). The completed dialog box is shown below. Next, select the **Objective** **Fields** **Settings** tab to activate the test options as before. You can let SPSS pick a test for you (Automatically choose the tests based on the data), but you have more options available if you select Customize tests. To do a Wilcoxon test check Wilcoxon matched-pair signed-rank (2 samples) To run the analysis click on .



To run the third Wilcoxon test you do the same thing as for the previous two tests above, but this time selecting **Weight after 1 month (kg)** and **Weight after 2 months (kg)** and dragging them to the box labelled *Test Fields* (or clicking on ). The completed dialog box is shown below. Next, select the **Objective** **Fields** **Settings** tab to activate the test options as before. You can let SPSS pick a test for you (*Automatically choose the tests based on the data*), but you have more options available if you select *Customize tests*. To do a Wilcoxon test check *Wilcoxon matched-pair signed-rank (2 samples)* To run the analysis click on . All of the outputs are in the book chapter.

