

Chapter 17: Exploratory factor analysis

Self-test answers




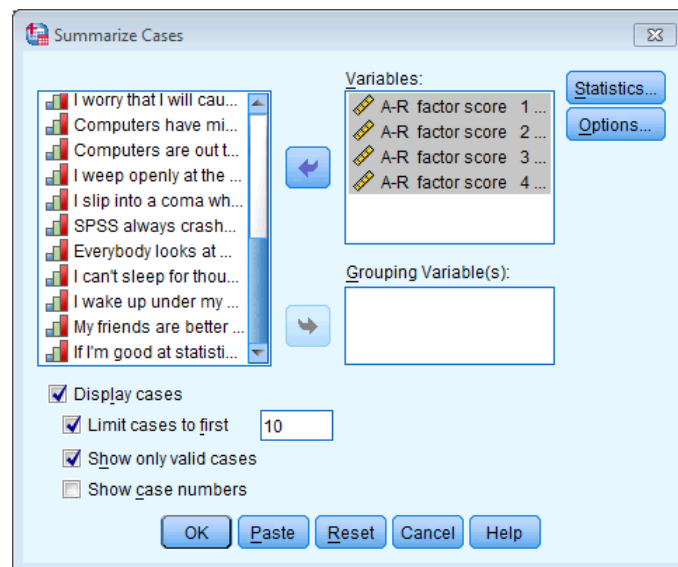
SELF-TEST What is the equation of a straight line/linear model?

$$Y_i = b_0 + b_1X_i + \varepsilon_i$$






SELF-TEST Use the *Case Summaries* command to list the factor scores for these data (given that there are over 2500 cases, you might like to restrict the output to the first 10 or 20).

To list the factor scores you need to use the *Case Summaries* command, which can be found by selecting **Analyze Reports Case Summaries...** Simply select the variables that you want to list (in this case the four columns of factor scores) and transfer them to the box labelled *Variables* by dragging them or clicking on . By default, SPSS will limit the output to the first 100 cases, but let's set this to 10 so we just look at the first few cases (as in the book chapter).



SELF-TEST Use the *compute* command to reverse-score item 3. (Clue: Remember that you are simply changing the variable to 6 minus its original value.)

To access the *compute* dialog box, select **Transform**  **Compute Variable...**. We came across this command in Chapter 5, and what we do is enter the name of the variable we want to change in the space labelled *Target Variable* (in this case the variable is called **Question_03**). You can use a different name if you like, but if you do SPSS will create a new variable and you must remember that it's this new variable that you need to use in the reliability analysis. Then, where it says *Numeric Expression* you need to tell SPSS how to compute the new variable. In this case, we want to take each person's original score on item 3, and subtract that value from 6. Therefore, we simply type 6-Question_03 (which means 6 minus the value found in the column labelled Question_03). If you've used the same name then when you click on  you'll get a dialog box asking if you want to change the existing variable; just click on  if you're happy for the new values to replace the old ones.

