

### Exercise 3 Exploring data.

These exercises have been prepared for use in conjunction with Chapter 3 of the 4<sup>th</sup> edition of “SPSS for Psychologists” by Brace, Kemp and Snelgar (2009)

1. Load the data file **Ex3Q1.sav**. This data file was created in response to one of the questions in Exercise 2. It records the mathematical ability of children who speak English or Indonesian as their first language. Your task is to:
  - a. Use the Explore command to discover the mean mathematical ability score for the Indonesian speaking children and for the English speaking children. Which group of children has the higher score?
  - b. Prepare Stem and Leaf Plots showing the mathematical ability score of the English and Indonesian speaking children.
  - c. Use the Frequencies command to produce a histogram of the age of the children (both Indonesian and English speaking plotted together). Edit the X-axis label and give the chart an appropriate title.
  
2. Load the data file **Ex3Q2.sav**. Imagine this data file was prepared by a colleague undertaking a study to investigate whether adults learn a maze more quickly when they actively explore it than when they passively observe another person explore the maze. Participants were undergraduate students and were allowed up to a maximum of 30 minutes to learn each maze. Your task is to:
  - a. Check the Variable View of the data file carefully. Make sure that the variables have been set up correctly. Correct any errors you find.
  - b. Use either the Explore or Frequencies command to check the data – look to see whether there are any values outside the expected ranges.
  - c. Explain how you would correct the errors you find.
  - d. Save the corrected data file.
  
3. Using your corrected data file from question 2 (above), use SPSS to:
  - a. Find the mean time to learn the maze under active and passive conditions.
  - b. Draw a chart showing these mean times. Label the axes of the chart appropriately.