Exercise 2
Entering and checking data in SPSS.

These exercises have been prepared for use in conjunction with Chapter 2 of the 5th edition of "SPSS for Psychologists" by Brace, Kemp and Snelgar (2012)

For each of the following questions:
a) Read the description of the study and identify the design and the variables involved. For each variable decide on the appropriate level of measurement.
b) Prepare the SPSS data file that would be needed for the study described. Ensure that you have created all the variables required and that each has the correct settings (name, label etc).
c) Enter fictitious data of the sort which would be collected in the study described.
d) Save the data file you have created – we will be using some of these files in later exercises.

1. Imagine you are a psychologist interested in the effect of language on thinking. You have noticed that in some languages the names given to numbers describes their numerical characteristics. For example in Indonesian 42 is "empat puluh dua" – which means "four tens and two". This is in contrast to languages such as English in which the names given to numbers are relatively arbitrary. You wonder whether as a result of this naming system young Indonesian speakers will have better number concept than English speakers. You recruit 20 children from year 5 of a school. Half of these children are native Indonesian speakers and half are native English speakers. Each child is tested using a standardized test of basic mathematical concepts which provides a score in the range 0 to 100.

2. You suspect that drivers who have passengers with them in the car are less likely to exceed the speed limit than lone drivers. You obtain a "speed gun" (a device to measure the speed of cars) and position yourself next to a major road. You observe the first 80 cars as they drive past you, noting whether or not the driver was alone and whether or not the car was exceeding the speed limit.

3. Imagine you are evaluating a treatment for depression. A total of twenty patients seeking treatment for depression are randomly assigned to either the Treatment or the Placebo (control) condition. Each patient is assessed by a psychologist using a standardised measure of depression (score in the range 1-50). The assessment is undertaken twice, once before treatment and once after treatment.

4. Imagine you are interested in how well adults learn in either passive or active learning environments. Each participant is required to learn two different mazes. One maze is learnt by walking around the maze (active condition) while the other is learnt by watching someone else walk around it (passive condition). You measure how long it takes the participant to learn the maze (measured in minutes). A total of 12 participants take part in your study. The order of the two conditions is randomized.

5. You are interested in how genetic and environmental factors influence children's weight at the age of 5 years. You recruit ten pairs of monozygotic ("identical") twins aged 5 years, and weigh each child.

6. Do exercises such as the ones you are doing now, help students to learn how to use SPSS? To investigate this question 20 students completed a test of their knowledge and understanding of SPSS. Prior to taking the test, half the students undertook a series of exercises.