

EXERCISE 2

Questionnaire data

Introduction

Exercises 2 to 7 in this and later chapters are concerned with the preparation and entry of data into SPSS, and with various **exploratory data analysis (EDA)** procedures such as calculating descriptive statistics, drawing graphs, transforming and selecting data and so on. In this Exercise, the reader is asked to complete a short questionnaire and to enter the data from it into SPSS. In Exercise 3, your own data will be merged with a larger data set, consisting of the responses of 334 other people to the same questionnaire. Subsequently, the combined file will be used as the data set for the various EDA procedures described in later exercises.

A questionnaire

Please complete the questionnaire below by writing in, on the table itself, the appropriate values or circling the appropriate options. It is sufficient to enter your age as a whole number of years. Enter your weight either, in traditional British units, as so-many stones plus so-many pounds (e.g. 8 in the upper box, 7 in the lower box if your weight is 8 stones 7 pounds) or, in metric units, as so-many kilos. Similarly, if you wish to give your height in British units, fill in two values, one for feet, the other for inches (e.g., 5 feet, 3 inches); whereas in metric units enter a single value, expressed to two places of decimals (1.52 metres).

What is your age?	Years			
What is your sex?	Male	1	Female	2
What is your Faculty of study?	Arts	1	Science	2
	Medicine	3	Other	4
What is your status?	Undergraduate	1	MSc postgraduate	2
	PhD postgraduate	3	Other	4
What is your approximate weight? Use British or metric measures				
British units			Stones	<input type="text"/>
			Pounds	<input type="text"/>
Metric units			Kilograms	<input type="text"/>

What is your approximate height? Use British or metric measures			
British units	Feet		
	Inches		
Metric units	Metres (include two decimal places)		
	Do you smoke?		
Yes	1	No	2
If so, how many a day?			

Having filled in the questionnaire in the usual way with pen or pencil, we are now going to ask you to do the same thing electronically, that is, by creating an SPSS file and entering your own data. The file will be saved for further use.

Opening SPSS

Log in to SPSS as described in Section 2.2. Select the radio button for **Type in data** from the opening **SPSS 16** window and click **OK**. If **Data View** appears first, click the **Variable View** tab to open **Variable View**.

Entering the data into the Data Editor

Data entry has two aspects:

Within **Variable View**, naming the variables and specifying their properties. Note that category variables such as *Sex*, *Faculty*, *Status* and *Smoker* must be specified as **Nominal** within the **Measure** column.

Within **Data View**, entering the data into the named columns representing the variables previously specified in **Variable View**.

Variable names, provided they conform to the rules for naming variables (Section 2.3.1), are normally a matter of individual preference. In this exercise, however, we have to take account of the fact that your data will later be merged with another (large) data set consisting of information from many people on the same variables. That operation requires that the corresponding variables in both data sets must have **exactly the same variable names**. It is also essential that you use the same **values** as in the larger data set (e.g. 1 for *Male*, 2 for *Female*). For this reason we ask you to use the following variable names and values:

CaseNo (Add a variable label *Case number* - see below)

MyName (Specify your name as a **string variable** - see below)

Age

Sex (Enter the numerical values and their value labels: 1 for *Male*, 2 for *Female* - see below)

Faculty (Add values and value labels: 1 for *Arts*, 2 for *Science*, 3 for *Medicine*, 4 for *Other* - see below)

Status (Add values and value labels: 1 for *Undergrad*, 2 for *MSc postgrad*, 3 for *PhD postgrad*, 4 for *Other* - see below)

Stones

Pounds

Kilos

Feet

Inches

Metres

Smoker (Add values and value labels: 1 for Yes, 2 for No - see below)

NpDay (Add the variable label Number of Cigarettes per Day - see below)

You will have noticed that the questionnaire did not ask for your name; nor indeed are names included in the large data set we shall be dealing with presently. Nevertheless, we ask you to include your name in the file you are building in order to clarify some aspects of file merging in SPSS.

In **Variable View**, enter all the variable names in the **Name** column, using the methods described in Section 2.3.1. In the **Type** column, retain **numeric** format (the default type) for all the variables except Name for which a **string** format (**alphanumeric**, or letters and numbers) will be used. In general, we recommend using the numeric format wherever possible: e.g. we prefer to enter qualitative variables such as gender, nationality or blood group as numeric grouping variables, taking care to **assign meaningful value labels** to the code numbers.

The string option for **Type** is selected by clicking anywhere in the corresponding cell of the **Type** column and then clicking the ellipsis (...) on the right to open the **Variable Type** dialog box. Select the **String** radio button and click **OK** to return to **Variable View**. You should also expand the column labelled **Width** to, say, 25 and copy and paste that value to **Columns** to allow your name to be entered in **Data View**.

While working in **Variable View**, use the **Values** column to assign value labels to the code numbers for *Sex*, *Faculty*, *Status* and *Smoker*. It is also useful to include a fuller description of any variable in the **Label** column, especially if the variable name is opaque (e.g. *Number of Cigarettes per Day* is clearer than *NpDay*). In the **Measures** column, all the non-string variables are **Scale** except *Sex*, *Faculty*, *Status* and *Smoker* which must be specified as **Nominal**.

The data are much easier to read if no decimals are displayed for any variable except *Metres* for which two decimal places will be required. Change the number in the **Decimals** column to 0 for all the variables except *Metres*, for which the default value 2 should be retained. Note that, for those respondents giving their weights or heights in British units, two SPSS variables will be allocated to each measure: *Stones* and *Pounds* for weight, and *Feet* and *Inches* for height. Those responding in metric units will enter their data in the *Kilos* and *Metres* variables. In Exercise 5, we shall be transforming British Units into metric units, so there is no need to worry about not knowing your metric measurements.

After specifying all the variables and their characteristics, click the **Data View** tab at the foot of **Variable View** to open **Data View** as described in Section 2.3.2. Enter your data along the first row, putting a 1 for your *Case*, typing in your name, age, a value for your sex, a value for your faculty and so on. If you do not smoke, do not enter anything in the *NpDay* column.

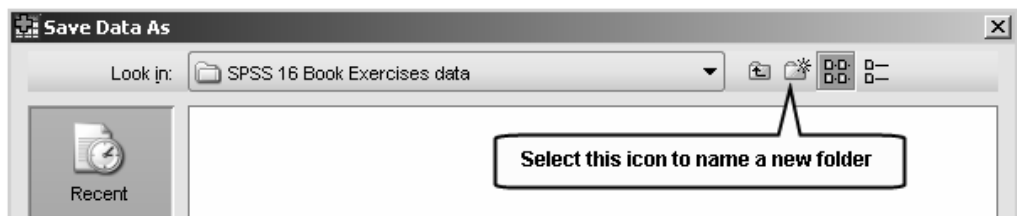
If you wish to enter your weight in stones plus pounds, enter values in the *Stones* and *Pounds* columns; otherwise enter a single value under *Kilos*. Similarly, if you want to enter your height in British units, enter values in the *Feet* and *Inches* columns; whereas a metric entry requires only a single value in the *Metres* column. If you have recorded your weight in pounds only,

enter a 0 in the *Stones* column. If you have recorded your height in inches only, enter a 0 in the *Feet* column.

Saving the data

Once you have entered your data and checked them for accuracy, select **File** → **Save As** to obtain the **Save Data As** dialog box.

You must now decide upon a suitable destination for your file (e.g. the computer's own hard disk C, a USB memory stick, a floppy disk in drive A, or a disk drive available on a networked system). We suggest you save your own data in a folder with a name such as *SPSS 16 Book Exercises data*, which you will have to create beforehand or by selecting the icon shown in the figure below and naming a new folder.



Choose **Save As** and, having made sure that *SPSS 16 Book Exercises data* is showing at the top of the dialog box, type the name *Ex2 Questionnaire Data* in the **File Name** box. Click **Save** to save your own questionnaire responses as the SPSS file *Ex2 Questionnaire Data*. You will be loading this file when you first open SPSS in the next Exercise.

Finishing the session

Close down SPSS and any other open windows before logging out of the computer.