



GHICHI ALI

السنة الدراسية 2017 - 2018



المركز الجامعي لميلة

المحور رقم (02)

مدخل تعريفي بمجموعة برامج (SPSS)



(Introduction on SPSS Software)

مقدمة حول مجموعة برامج SPSS

(Data input)

إدخال البيانات

- Data Creation in SPSS استحداث البيانات في (SPSS)
- Defining Variables in the Variable View تعريف المتغيرات في شاشة عرض المتغير
- Inputting data from other application programs إدخال البيانات من برامج أخرى

(Data editing)

تحرير البيانات

- Creating/calculating a new variable استحداث/ حساب متغير جديد
- Research on a subset of observations البحث في مجموعة فرعية من الملاحظات
- Splitting the data file تقسيم قاعدة البيانات
- Recoding variables إعادة ترميز المتغيرات



SPSS (Statistical Package for the Social Sciences)

Is a widely distributed software program which allows data to be analysed. This may involve simple descriptive analyses as well as more advanced techniques, such as multivariate analysis. SPSS consists of different modules. This means that in addition to the basic module (Base System), there are also other modules. These are normally destined for more advanced and specialized analyses (for example, the AMOS module, SPSS Data Entry module). SPSS works with different screens for each type of action (for example data input, output, programming, etc.).

Extension

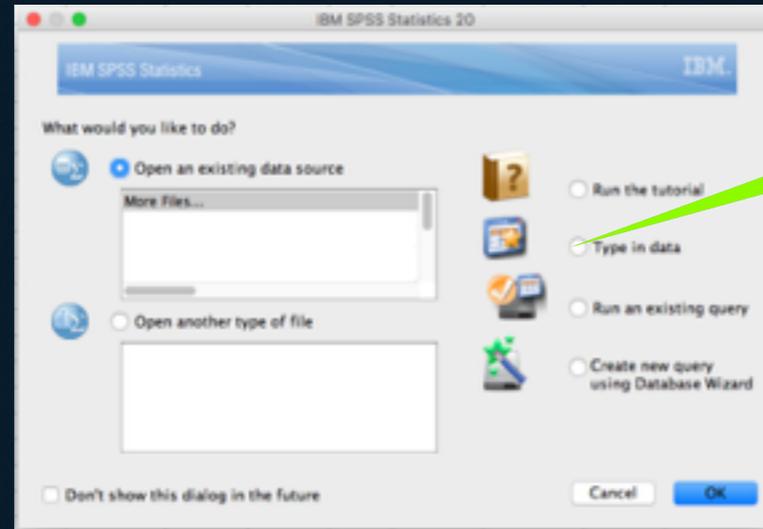
- Data files are indicated by the extension *.sav*.
- Output screen is indicated by extension *.spo or .spv*.
- Syntax screen is indicated by extension *.sps*.



1. Opening SPSS

مقدمة حول مجموعة برامج SPSS

There are several ways of beginning a session with SPSS, depending upon whether you intend to build a new file or to access an old one. When SPSS is opened for the first time by clicking the SPSS icon, an opening dialog box will appear with the title SPSS Statistics 20



Click to type data
into the *Data Editor*



2. The SPSS Statistics Data Editor

مقدمة حول مجموعة برامج SPSS

The highlighted cell is the cell that is currently active

This area displays the value of the currently active cell

	chapters	enrich	var	var	var
1	4.00	27.00			
2	1.00	48.00			
3	2.00	46.00			
4	2.00	44.00			
5	2.00	42.00			
6	3.00	40.00			
7	7.00	17.00			

This shows that we are currently in the 'Data View'

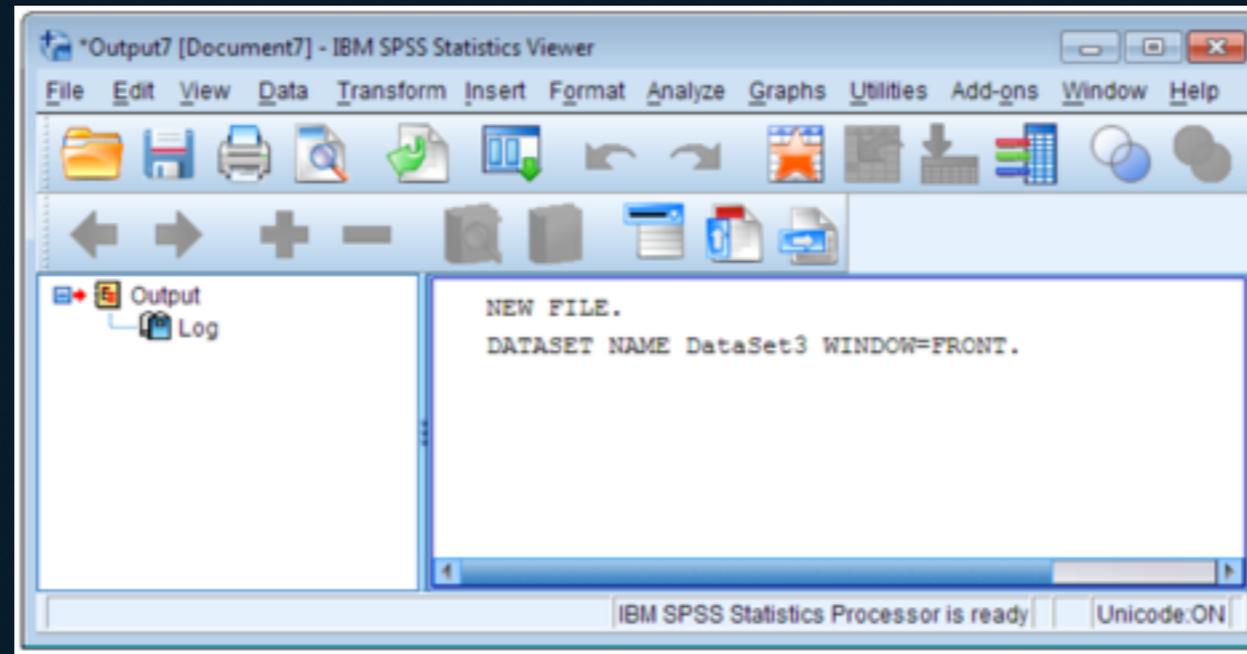
We can click here to switch to the 'Variable View'



1. **The Data Editor** provides two alternative windows: (**Variable View** contains the names and details of the variables in the data set). (**Data View** is an array like a spreadsheet, into which the user can either type new data or enter data from a stored file).

(3. OUTPUT VIEWER)

مقدمة حول مجموعة برامج SPSS: (شاشة العارض)



1. **The Output Viewer window:** is divided into two sections, or frames. The left frame contains an outline of the content in the Output Viewer. This outline is especially useful when you have run many SPSS commands and need to locate a particular section of output easily. The right frame contains the actual output.
2. **An Output Viewer window can be saved as:** a viewer file (*.spv) so that you can review it again without having to re-run the same commands in SPSS. To save an Output Viewer window, click File > Save As. Alternatively, you can export some or all of the contents in the Viewer window to a new document or image file by clicking File > Export. In general, you can export all content as a PDF (*.pdf), a PowerPoint file (*.ppt), an Excel file (*.xls or *.xlsx), a Word file (*.doc or *.docx), an HTML file (*.htm), or a text file (*.txt). Graphs can be saved as *.bmp, *.emf, *.eps, *.jpeg, *.png, or *.tif.

(4.SPSS Toolbar Shortcuts)

مقدمة حول مجموعة برامج SPSS: (شريط الأدوات)

Icon	Tooltip	Description
	Open data document	Open a datafile. Equivalent to File > Open > Data.
	Save this document	Save the active dataset. Equivalent to File > Save or Ctrl + S
	Print	Print the contents of the active data view window. Not recommended. Equivalent to File > Print.
	Recall recently used dialogs	Shows the list of most recently used dialog windows. Use when you need to re-run an analysis.
	Undo a user action	Equivalent to Edit > Undo (in the drop-down menus) or Ctrl + Z .
	Redo a user action	Equivalent to Edit > Redo (in the drop-down menus) or Ctrl + Y .



1. By default, the Data View window: has the following shortcuts for common tasks.

(4.SPSS Toolbar Shortcuts)

مقدمة حول مجموعة برامج SPSS: (شريط الأدوات) تابع

Icon	Tooltip	Description
	Go to case	Jump to a specific case (row) in the active dataset. Equivalent to Edit > Go to Case.
	Go to variable	Jump to a specific variable (column) in the active dataset. Equivalent to Edit > Go to Variable.
	Variables	View the variable name, labels, type, measurement level, missing value codes, and value labels for all variables in the active window. Equivalent to Utilities > Variables.
	Run descriptive statistics	Variables are summarized with a frequency table; scale variables are summarized using mean, median, standard deviation, range, minimum, and maximum. Equivalent to Analyze > Descriptive Statistics > Frequencies.



(4.SPSS Toolbar Shortcuts)

مقدمة حول مجموعة برامج SPSS: (شريط الأدوات) تابع

Icon	Tooltip	Description
	Find	Search for a value or observation in the dataset, or search and replace a value or observation in the dataset. Equivalent to Edit > Find and Edit > Replace, or Ctrl + F and Ctrl + H , respectively.
	Insert cases	Insert a case between two existing cases. Equivalent to Edit > Insert Cases.
	Insert variable	Insert a new variable between two existing variables. Equivalent to Edit > Insert Variable.
	Split file	Stratify your analyses based on a categorical variable. For Exp, if the variable Gender is selected in Split File, running descriptive statistics on any other variables will produce descriptives for males and females separately. Equivalent to Data > Split File.



(4.SPSS Toolbar Shortcuts)

مقدمة حول مجموعة برامج SPSS: (شريط الأدوات) تابع

Icon	Tooltip	Description
	Weight cases	Set a weighting variable. Equivalent to Data > Weight Cases.
	Select cases	Extract a set of cases to a new datafile based on some criteria, or apply a filter variable. Equivalent to Data > Select Cases.
	Value labels	Toggle whether the raw data or the value label is displayed in the Data View window. Equivalent to View > Value Labels.
	Use variable sets	Select or unselect sets of variables to show in the active window. Equivalent to Utilities > Use Variable Sets. Note that you must first define a variable set. (Utilities > Define Variable Sets) in order for this to be useful.



(Executing Commands in SPSS)

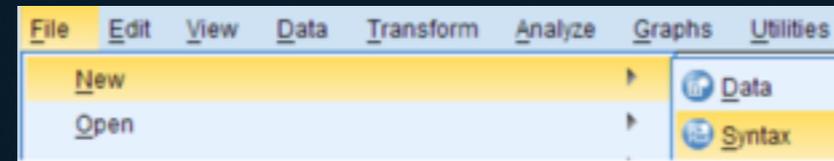
مقدمة حول مجموعة برامج SPSS: (تنفيذ الأوامر)

SPSS offers two basic ways of working with your data: drop-down menus and syntax commands.

- **Drop-down menus:** Users who are new to SPSS typically learn the software by using drop-down menus.



- **Syntax Commands:** Advanced users can interact with SPSS by writing their own syntax. Syntax is a command-driven language that tells SPSS what actions to perform on the data.




1. These are the menus that you see across the toolbar at the top of the screen--e.g., File, Edit, View, Data, etc. These menus provide the options you need for performing specific actions on your data. Clicking on any one of the menus will produce a list of menu items. You may then select a specific menu item from the list to perform specific actions.
2. Using syntax commands (rather than drop-down menus) is preferable for several reasons:
3.
 - Syntax allows users to write commands that are not available via drop-down menus.
4.
 - Syntax provides a useful log of what steps you have taken while working with your data.
5.
 - Syntax allows you to easily edit your commands, in any order, rather than having to re-select each drop-down command if you decide to change some part of your analysis.
6.
 - Syntax allows you to consistently reproduce your commands, which is important for validating your methods.
7. Overall, syntax offers more flexibility, a clearer record, and greater ease in making changes and re-running commands. It does take some practice to learn to write the basic command language, but once you learn the language the benefits of working with data in this way will become very clear.

(The Data View Window)

مقدمة حول مجموعة برامج SPSS: (شاشة عرض البيانات)

Reading the Data View: When you view data in SPSS, each row in the Data View represents a case, and each column represents a variable.

1. Cases represent independent observations, experimental units, or subjects.
2. Variables are attributes, characteristics, or measurements that describe cases.

	ids	Rank	Gender	Athlete	Height	Weight
1	20183		Male	Non-athlete	66.92	192.61
2	20230	Freshman	Male	Athlete	80.11	
3	20243	Junior	Female	Non-athlete	65.99	128.40
4	20248	Freshman		Non-athlete	61.32	153.87
5	20255	Sophomore	Female	Non-athlete	65.75	
6	20278		Male	Non-athlete	70.66	179.20
7	20389		Male	Non-athlete	70.68	198.52



1. **For example:** if the data are based on a survey of college students, then each row in the data would represent a specific college student who participated in the study.
2. **For example:** your data might include information such as each college student's date of birth, grade point average (GPA), date of enrollment, and date of graduation. Each of these pieces of information is a variable that describes each case (college student).

(Viewing Multiple Sections)

مقدمة حول مجموعة برامج SPSS: (شاشة عرض متعددة)

View multiple sections of your data simultaneously: The Split option allows you to divide the Data View window into multiple sections that can be viewed simultaneously, click **Window > Split**.

The screenshot shows the SPSS Data Editor window with the 'Split' option selected in the 'Window' menu. The Data Editor window is partitioned into four sections: a top section for variable names, a left section for variable labels, a right section for variable types, and a bottom section for the data grid. The data grid shows 12 rows of data with columns for 'ids', 'Gender', 'Athlete', 'Rank', 'State', and 'Height'.

	ids	Gender	Athlete	Rank	State	Height
1	26582	Male	Athlete			73
2	48919	Female	Athlete		In state	72
3	27496	Female	Non-athlete		In state	67
4	48303	Female	Non-athlete			59
5	23643	Male	Athlete			
6	20183	Male	Non-athlete		In state	64
7	46752	Female	Non-athlete		In state	61
8	41291	Male	Athlete		Out of state	71
9	26154	Female	Non-athlete		In state	58
10	25871	Male	Athlete		In state	
11	44116	Female	Non-athlete		In state	69
12	37701	Female	Athlete		In state	63



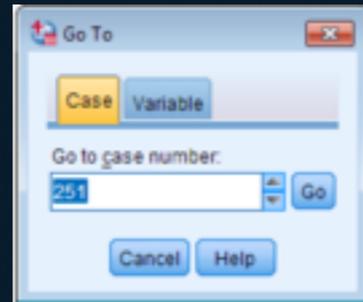
1. Now the Data Editor window is partitioned into four sections. The upper and lower sections, as well as the left and right sections, are controlled by separate scroll bars.

مقدمة حول مجموعة برامج SPSS: السجل والمتغير (Looking for specific Case or variable)

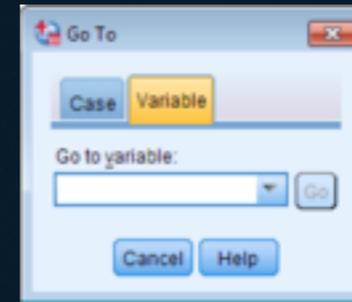
SPSS provides a way of quickly jumping to specific cases or variables in your dataset in the Data View window.

To jump to a specific case number:

1. Click the Go to **case** icon  or Click **Edit > Go to Case**.
2. Enter the case number
3. Click Go

**To jump to a specific variable number:**

1. Click the Go to **variable** icon  or Click **Edit > Go to variable**.
2. Enter the variable number
3. Click Go



1. This is an especially useful option for **large datasets** that include hundreds of cases and variables.

(Using SPSS Syntax)

مقدمة حول مجموعة برامج SPSS: لغة البرمجة في SPSS

SPSS syntax is a programming language that is unique to SPSS. It allows you to write commands that run SPSS procedures, rather than using the graphical user interface.

In SPSS syntax, placing an **asterisk** (*) or a **forward-slash followed by an asterisk** (/*) at the start of a line will turn all text on that line into a **comment**. Hitting the **Enter key** will create a **new, un-commented line**. Typically, comments in SPSS syntax are color-coded with the color gray.

Dark blue/purple	Procedure names; execution statements
Green	Statements associated with the given procedure
Dark red/orange	Option keywords
Gray	Comments
Black	Variable names; other text

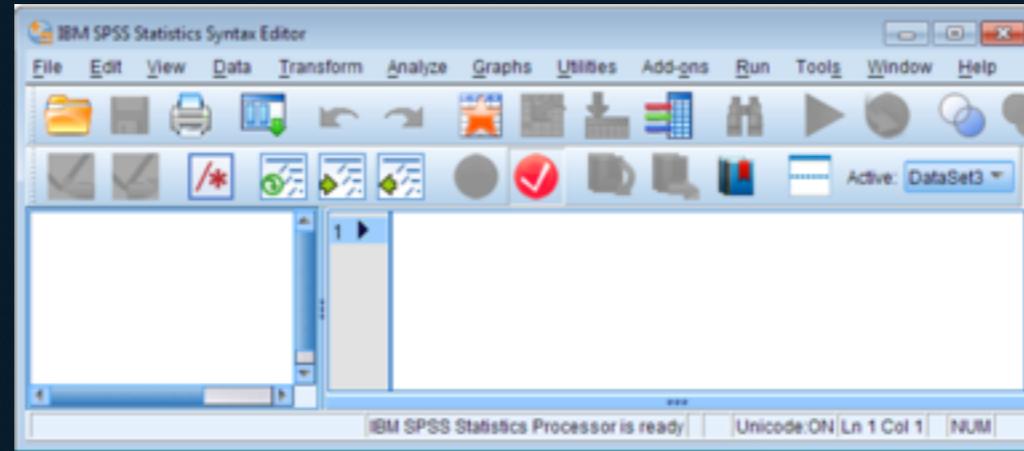


- TIP:** You can view the content of a syntax file (*.sps) using a text editor like Notepad or Notepad++, even on computers that do not have SPSS installed.
- Note:** You can copy the syntax from an output window and paste it into a new Syntax Editor window to re-use, modify, and save the syntax. To copy syntax from the output (in the Output Viewer window), simply click the syntax, copy it, and paste it into a Syntax Editor window.
- In general, if you are working on a major project** (like a thesis, dissertation, or research for publication), or if you are collaborating with others on data analysis, we strongly recommend using SPSS syntax.

(Using SPSS Syntax)

مقدمة حول مجموعة برامج SPSS: لغة البرمجة في SPSS

OPENING THE SYNTAX EDITOR

To open a new Syntax Editor window, click **File > New > Syntax**.

EXECUTING SYNTAX COMMANDS

To execute (or run) the commands, highlight the lines you want to run, then **click Run > Selection**, or press **Ctrl + R** on your keyboard.

1. After you've opened a Syntax Editor window, you can start writing your syntax directly in this window. Alternatively, you can generate syntax while using the **graphical user interface**: almost all SPSS procedures accessed through the dropdown menus can generate syntax by clicking the Paste button instead of clicking OK/Run. After clicking the Paste button, the new syntax will automatically be added to your open Syntax Editor window.

