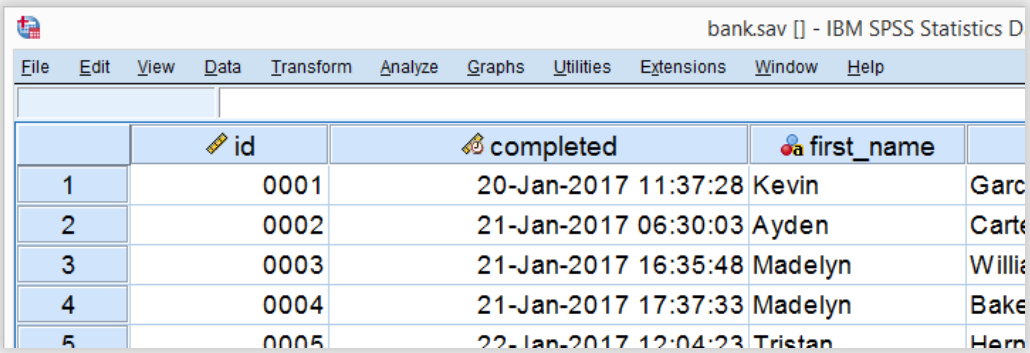
SPSS TUTORIALS

SPSS Syntax Introduction

SPSS syntax is a language containing instructions for analyzing and editing data and other SPSS commands.

- How to paste SPSS syntax?
- How to run SPSS syntax?
- Writing simpler syntax
- How to get SPSS syntax?
- Why even use SPSS syntax?

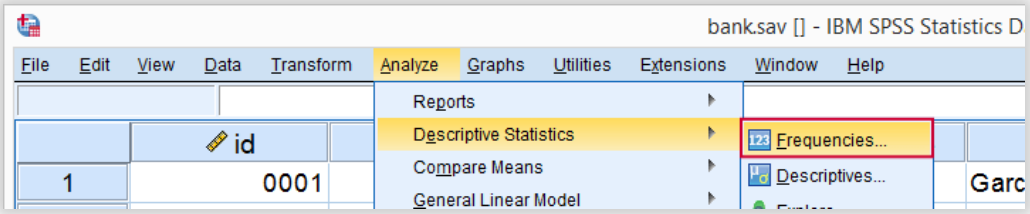
SPSS users working directly from the menu may not actually see they syntax they're running. However, this is a terrible practice and we'll explain why in a minute. So let's download and open bank.sav -partly shown below- and jump right in.



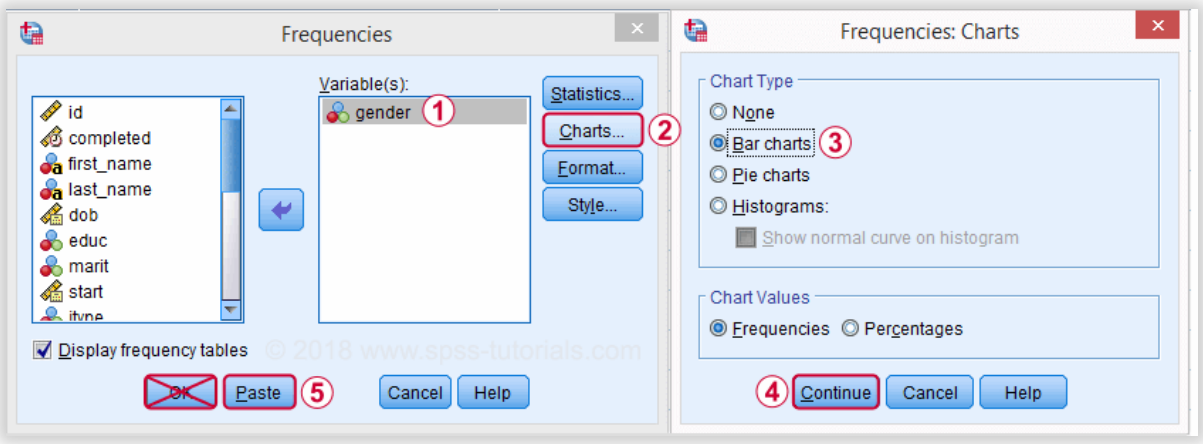
	id	completed	first_name	
1	0001	20-Jan-2017 11:37:28	Kevin	Garc
2	0002	21-Jan-2017 06:30:03	Ayden	Carte
3	0003	21-Jan-2017 16:35:48	Madelyn	Willia
4	0004	21-Jan-2017 17:37:33	Madelyn	Bake
5	0005	22-Jan-2017 12:04:23	Tristan	Hern

How to paste SPSS syntax?

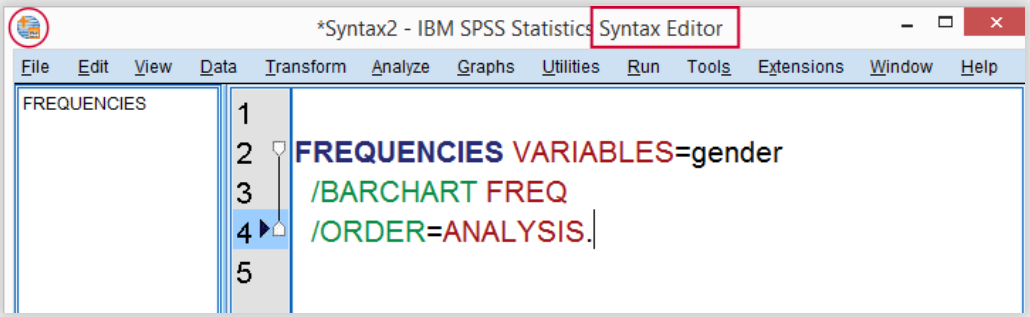
Now let's suppose I'd like to gain some insight into the percentages of male and female respondents. I could first navigate to Analyze ▸ Descriptive statistics ▸ Frequencies as shown below.



I'll now ① move gender into the variable box and perhaps ③ request a bar chart as well.



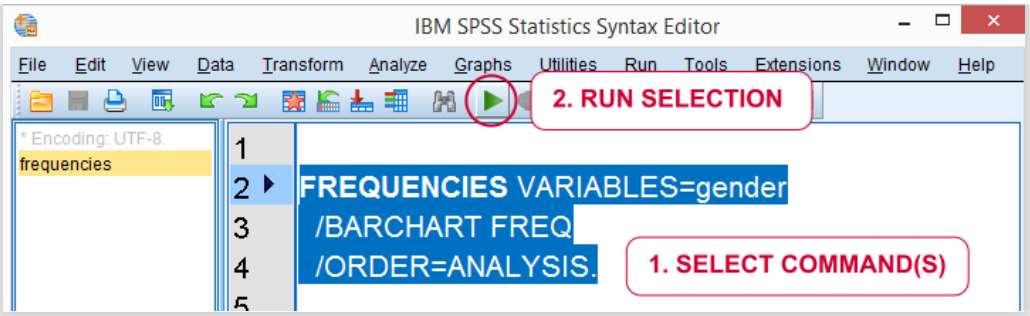
Now clicking Ok may *seem* the obvious thing to do. A much better idea, however, is to click the Paste button. Upon doing so, a new SPSS window opens which is known as the Syntax Editor. It's recognized by the orange icon in its left top corner.



The Syntax Editor contains a FREQUENCIES command which holds the instructions we just gave SPSS in the Frequencies dialog. However, we don't see the frequency distribution and bar chart we asked for. This is because we still need to *run* the command we just created.

How to run SPSS syntax?

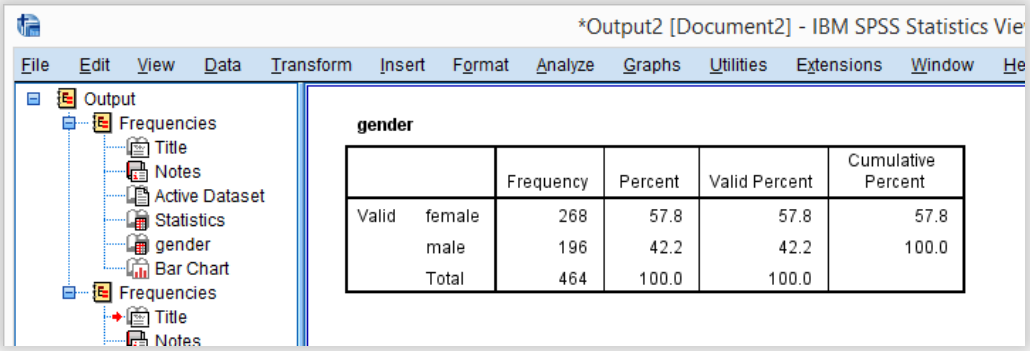
The simplest way to run syntax is to select the command(s) you'd like to run and click the “run selection” icon in your toolbar.



A faster way to run syntax is to use several shortkeys, especially

- `F2` for selecting the command in which your mouse pointer is located;
- `Ctrl` + `a` for selecting *all* syntax;
- `Ctrl` + `r` for running all selected commands.

So let's now run our pasted syntax. On doing so, a new window will open, containing our frequency table and barchart. This is an output window which we'll discuss in our next tutorial.

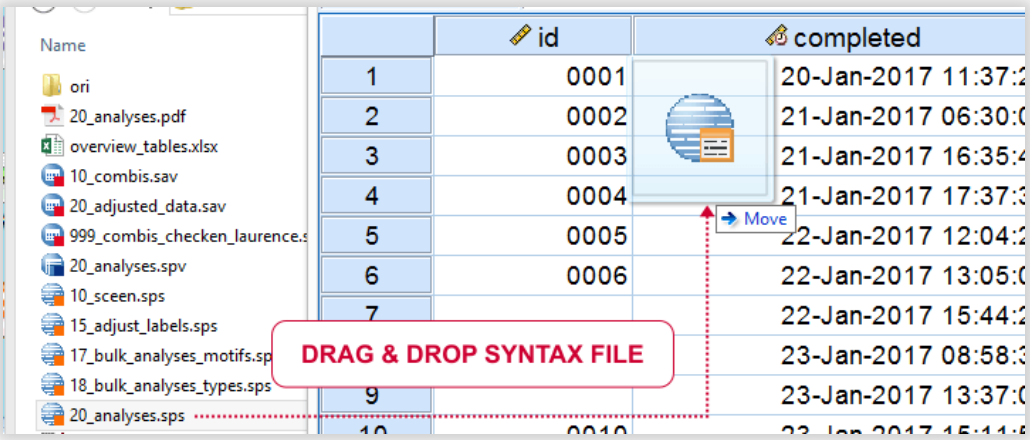


How to get SPSS syntax?

The right way to do basically anything in SPSS -editing and analyzing data, creating tables and charts and more- is by running syntax. So how to get syntax? First off, using the Paste button from the menus adds

syntax to your syntax window. If you don't have a syntax window open yet, it'll open one for you. Options for **opening a syntax window** are

- using the Paste button from the menus;
- drag and drop a syntax file into the Data Editor window (shown below);
- clicking the New Syntax toolbar icon;
- Navigate to File ▸ New ▸ Syntax.



If you've a syntax window open, you still need the actual syntax. Options to **get the syntax** you need are

- use the Paste button from SPSS' menu;
- copy-paste syntax from our tutorials, online forums and elsewhere;
- type the commands you need into the syntax window.

Now, typing syntax may seem like a crazy thing to do at this point. However,

typing syntax is much easier than it seems

because most of it can be dramatically simplified.

Writing simpler syntax

The syntax we just pasted from the menu was:

```
FREQUENCIES VARIABLES=gender
/BARCHART FREQ
/ORDER=ANALYSIS.
```

Now typing all that manually is a lot of work. However, we'll get the **exact same results** if we run:

```
frequencies gender
/barchart.
```

Just typing and running this is much **faster** and easier than clicking through all menu options. So if you want to get real good -and *real fast*- with SPSS, start learning short syntax. This will take some practice but it will save you tons of time and effort in the longer run.

SPSS Syntax Files

We can now save all contents of our Syntax Editor as a syntax file by going to File ▸ Save as... The resulting syntax file has the .sps (for "SPSS syntax") file extension and is a plain text file. You can open, edit and save it with SPSS or any text editor such as Notepad++.
When saving syntax in newer SPSS versions, something like

```
* Encoding: UTF-8.
```

may be added. Just leave and **ignore this**, it's not meant for you but, rather, some kind of "note to self" from SPSS.

Why even use SPSS syntax?

The single best SPSS practice is doing everything from syntax. Some reasons for this are

- you'll always know *exactly* which steps you took in which order so you can **prove** that your results are correct;

- if you made some **mistake** -don't we all sometimes?- you can correct it and rerun everything you did in just seconds;
- you'll work way **faster** than from the menu and you never have to do things twice;
- some of the best SPSS tricks and **time savers** are available as syntax only.

So say you run 10 tables and charts from the menu. And then you realize you should have filtered out all respondents working in IT. Now you have to **start all over again**: remove the unwanted respondents and click your way through all the same menus and dialogs again...

Sounds like a terrible idea. Doesn't it?

Unfortunately, I see students having to do days of SPSS work all over again on a daily basis. Not working from syntax really is the very worst SPSS practice.
So say *I* run those 10 tables and charts and I saved all syntax. Then I realize I should have filtered out all respondents working in IT. Ok. No problem. I'll just add

```
SELECT IF (jtype <> 3).
```

to the top of my syntax and rerun all tables and charts in one go.

Thanks for reading!

Let me know what you think!

Your name*

Your email address*

Your website

Your comment*

Done!

Required field. Your comment will show up after approval from a moderator.

This tutorial has 41 comments

By Hailay on August 3rd, 2019

please, help me to know spss statistics

1 … 9

Get In Touch!

Ruben Geert van den Berg

LinkedIn

Facebook

SPSS Help (Netherlands)

Sigma Plus Statistiek

www.sigma-plus-statistiek.nl

info@sigma-plus-statistiek.nl

SPSS Help (International)

SPSS tutorials

www.spss-tutorials.com

info@spss-tutorials.com

Ne
Tip