

Statistics Using IBM SPSS

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What is SPSS?

SPSS is a powerful statistical software program with a graphical interface designed for ease of use. Almost all commands and options can be accessed using pull down menus at the top of the main SPSS window. This design means that once you learn a few basic steps to access programs, it is very easy to expand your knowledge in using SPSS through the help files. To access the online SPSS help, you click on Help in the menu and then click on Topics if you want help by topic or on Tutorials for step-by-step hands-on guide.

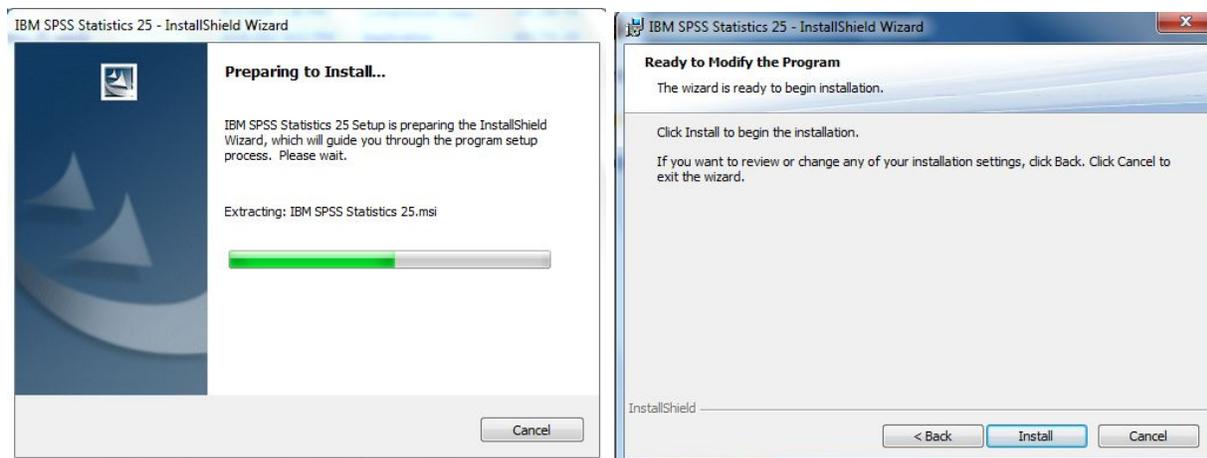
How to get SPSS software?

There are different versions of SPSS available. According to your computer configuration (either windows 32 bit, 64 bit or Mac OS) you need different SPSS software. The following link is to be used to download SPSS (This link is allowed for you only. Please don't share it to others).

<https://bijaylal.wordpress.com/>

How to install SPSS in your System?

After getting the Zip file in your system first of all unzip the file then you will get one application file and one folder. First click the application file and follow the instructions to install SPSS in your system. Click on yes... yes... and select the radio button I accept the terms in the license agreement in each cases and then click in Install. It will install SPSS in your system.

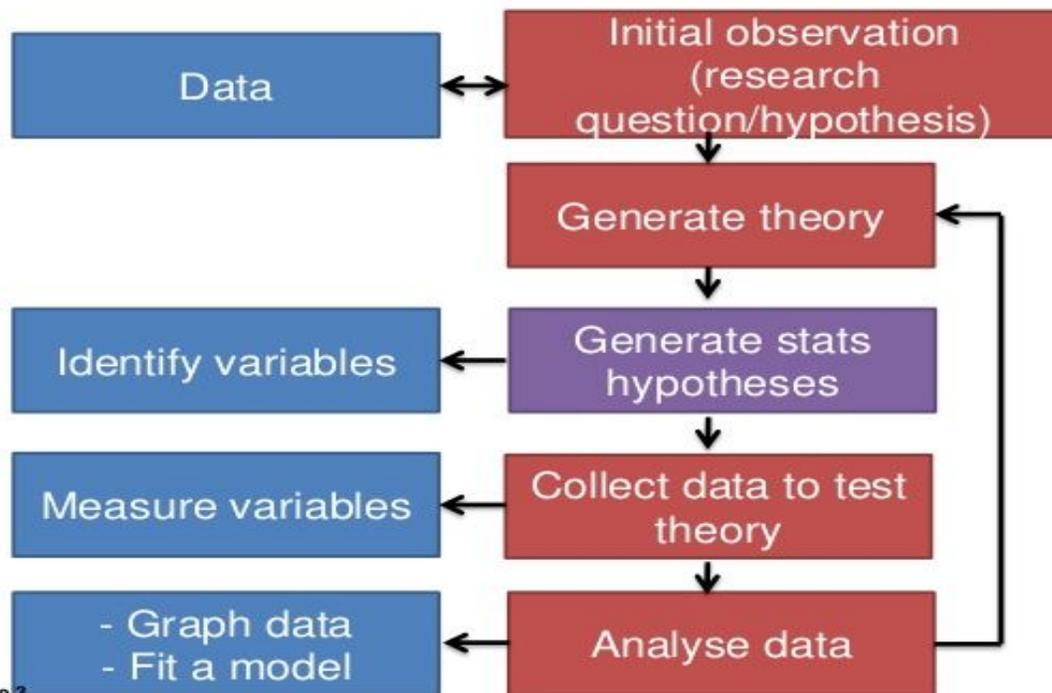


After installation, do not go for registration process, simply copy the file lservc from the folder given and paste this file to the C:\Program Files\IBM\SPSS\Statistics\20 or C:\Program Files\IBM\SPSS\Statistics\25 according to the version of your SPSS Program.

Note: If you have problem in installation pls contact me at bijayprad@gmail.com or write me message in messenger <https://www.facebook.com/messages/t/Dr.Bijay.Lal.Pradhan>.

The Quantitative Research Process

<ul style="list-style-type: none"> Establish a common understanding of the problem and potential interrelationships Conduct discussions with decision makers and interviews with experts First screening of data and information sources This phase should be characterized by communication, cooperation, confidence, candor, closeness, continuity, creativity 	Problem Definition
<ul style="list-style-type: none"> Specify an analytical, verbal, graphical, or mathematical model Specify research questions and hypotheses 	Theory
<ul style="list-style-type: none"> Specify the measurement and scaling procedures Construct and pretest a questionnaire for data collection Specify the sampling process and sample size Develop a plan for data analysis 	Research Design Formulation
<ul style="list-style-type: none"> Data collection Data preparation Data analysis Validation/Falsification of theory 	Field Work & Assessment
<ul style="list-style-type: none"> Report preparation and presentation Decision 	Decision



Field, Andy (2015)

SPSS firm (windows and syntax)

For both the beginner and the advanced researchers, SPSS is an indispensable and powerful program that is relatively easy to use once the researcher has been taught the fundamentals. The Windows version of SPSS has introduced a point-and-click interface that allows the researcher to merely point and click through a series of windows and dialogue boxes to specify the analysis required and the variables involved. windows method eliminates the need to learn the very powerful syntax or command language used to execute SPSS analyses, and has proven to be highly popular for those researchers with little or no interest in learning the syntax method. Nevertheless, SPSS for Windows has retained the syntax method, which permits the researcher to execute SPSS analyses by typing commands (syntax files).

Activities done in SPSS.

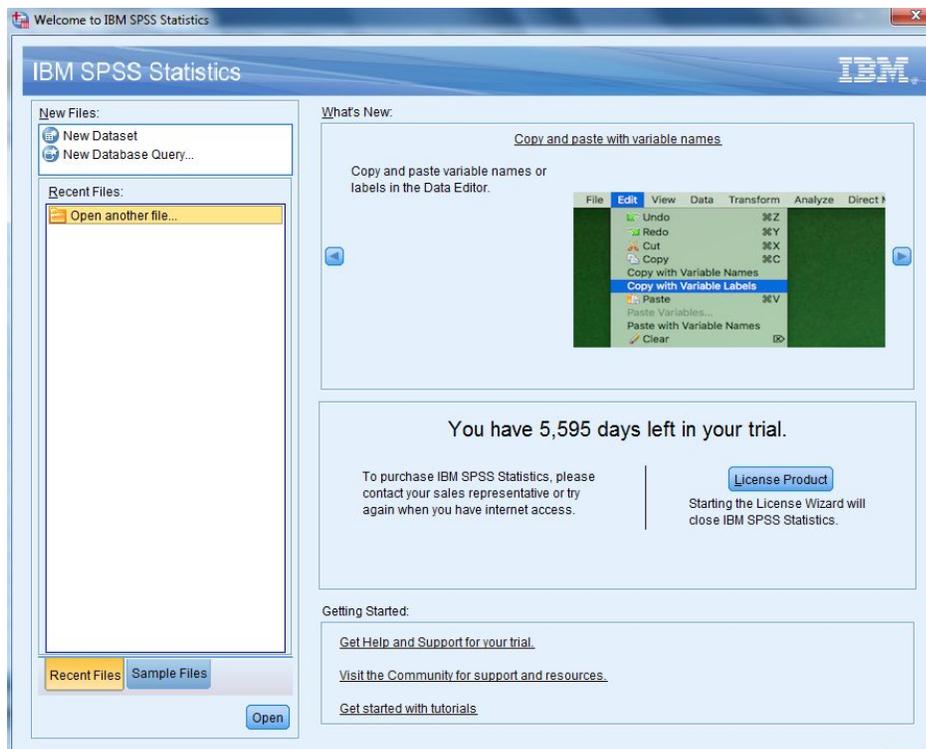
Working Through SPSS

For beginner researchers the two most basic functions of SPSS are:

- (1) to set up data files in SPSS for Windows and
- (2) conducting SPSS analysis via the Windows method and/or the syntax method.

Starting SPSS Program

Choose Start→All Programs→IBM SPSS Statistics→IBM SPSS Statistics 25. The SPSS Welcome dialog shown here appears.



This is where you can see what's new in the software, provide user feedback, and navigate to data files. You can open any one sample SPSS data files.

Two Views of Data Windows

Variable Views

The screenshot shows the Variable View of the IBM SPSS Statistics Data Editor. The window title is 'breakfast.sav [DataSet1] - IBM SPSS Statistics Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Extensions, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main area is a table with the following columns: Name, Type, Width, Decimals, Label, Values, Missing, Col..., Align, Measure, and Role. The data is as follows:

	Name	Type	Width	Decimals	Label	Values	Missing	Col...	Align	Measure	Role
1	srcid	Numeric	3	0	Menu scenarios	{1, Over...	None	6	Right	Scale	Input
2	gender	Numeric	3	0	Gender	{1, Mal...	None	8	Right	Scale	Input
3	TP	Numeric	3	0	Toast pop-up	None	None	5	Right	Ordinal	Input
4	BT	Numeric	3	0	Buttered toast	None	None	5	Right	Ordinal	Input
5	EMM	Numeric	3	0	English muffin and...	None	None	5	Right	Ordinal	Input
6	JD	Numeric	3	0	Jelly donut	None	None	5	Right	Ordinal	Input
7	CT	Numeric	3	0	Cinnamon toast	None	None	5	Right	Ordinal	Input
8	BMM	Numeric	3	0	Blueberry muffin a...	None	None	5	Right	Ordinal	Input
9	HRB	Numeric	3	0	Hard rolls and butter	None	None	5	Right	Ordinal	Input
10	TMd	Numeric	3	0	Toast and marmal...	None	None	5	Right	Ordinal	Input
11	BTJ	Numeric	3	0	Buttered toast and...	None	None	5	Right	Ordinal	Input
12	TMn	Numeric	3	0	Toast and margarine	None	None	5	Right	Ordinal	Input
13	CB	Numeric	3	0	Cinnamon bun	None	None	5	Right	Ordinal	Input
14	DP	Numeric	3	0	Danish pastry	None	None	5	Right	Ordinal	Input

At the bottom, there are buttons for 'Data View' and 'Variable View', with 'Variable View' being the active view. The status bar at the bottom right indicates 'IBM SPSS Statistics Processor is ready' and 'Unicode:ON'.

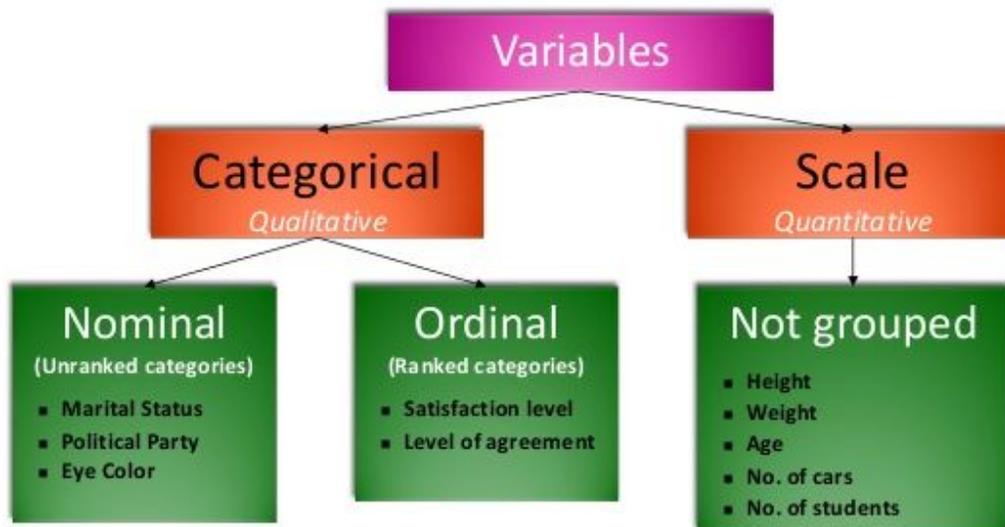
Data Views

The screenshot shows the Data View of the IBM SPSS Statistics Data Editor. The window title is 'breakfast.sav [DataSet1] - IBM SPSS Statistics Data Editor'. The menu bar and toolbar are the same as in the Variable View. The main area displays a grid of data for 13 rows and 10 columns. The columns are labeled with variable names: srcid, gender, TP, BT, EMM, JD, CT, BMM, HRB, and a final column with a bar chart icon. The data is as follows:

	srcid	gender	TP	BT	EMM	JD	CT	BMM	HRB
1	1	1	13	12	7	3	5	4	8
2	1	2	15	11	6	3	10	5	14
3	1	1	15	10	12	14	3	2	9
4	1	2	6	14	11	3	7	8	12
5	1	1	15	9	6	14	13	2	12
6	1	2	9	11	14	4	7	6	15
7	1	1	9	14	5	6	8	4	13
8	1	2	15	10	12	6	9	2	13
9	1	1	15	12	2	4	5	8	10
10	1	2	15	13	10	7	6	4	9
11	1	1	9	2	4	15	8	5	1
12	1	2	11	1	2	15	12	3	4
13	1	1	12	1	14	4	5	6	11

At the bottom, there are buttons for 'Data View' and 'Variable View', with 'Data View' being the active view. The status bar at the bottom right indicates 'IBM SPSS Statistics Processor is ready' and 'Unicode:ON'.

Levels of Measurement



Measure	
Scale	▼
Scale	
Ordinal	
Nominal	

- In SPSS, data is either Nominal, Ordinal or Scale.
- It is **essential** to classify data correctly.
 - Incorrect classification...
may result in incorrect analyses.