Scatterplots and Correlations in Excel 2016

You should already have the Excel tutorial data file open.

1. Select the 'Gender', 'Funny', and 'Happy' variables and copy them to a new sheet in Excel.
2. Select all three variables and Sort by Gender from Z to A.
3. We will not be using the female data, so you can select all the female data and delete it from the sheet.

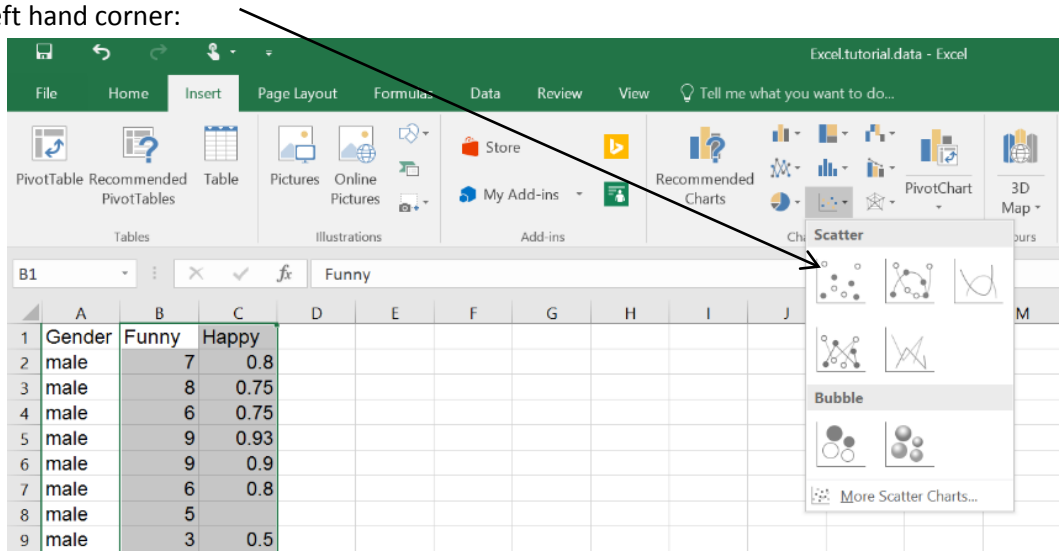
For this example, assume that Funny predicts Happy, i.e., Funny should be the variable that goes on the x-axis and Happy should go on the y-axis. **When you highlight data in Excel to generate a scatterplot, Excel automatically assigns the data in the first column to the x-axis and the data in the 2nd column to the y-axis.**

4. Right click on the Funny column and select 'Cut' then click on the Happy column, right click, and select 'Insert Cut Cells.'

   The data should appear as follows before you generate the scatterplot:

	B	C
	Funny	Happy
	7	0.8
	8	0.75
	6	0.75
	9	0.93
	9	0.9
	6	0.8

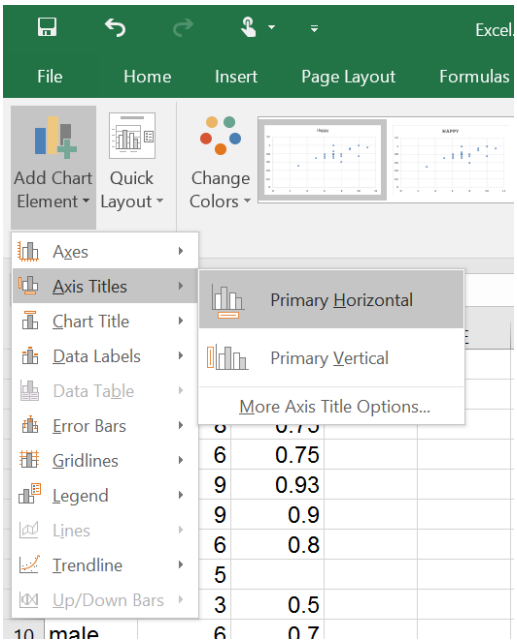
5. Highlight the data for Funny and Happy
6. Select the Insert Tab and click on the arrow next to the scatter icon, then select the first graph in the left hand corner:

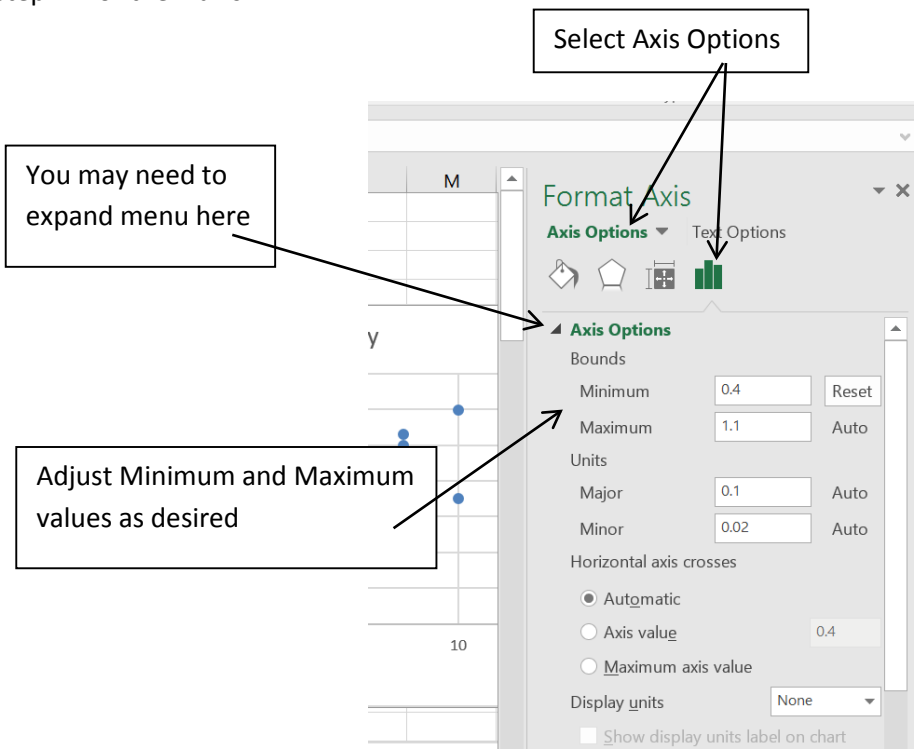


Excel will create a scatterplot, but you still need to do some formatting.

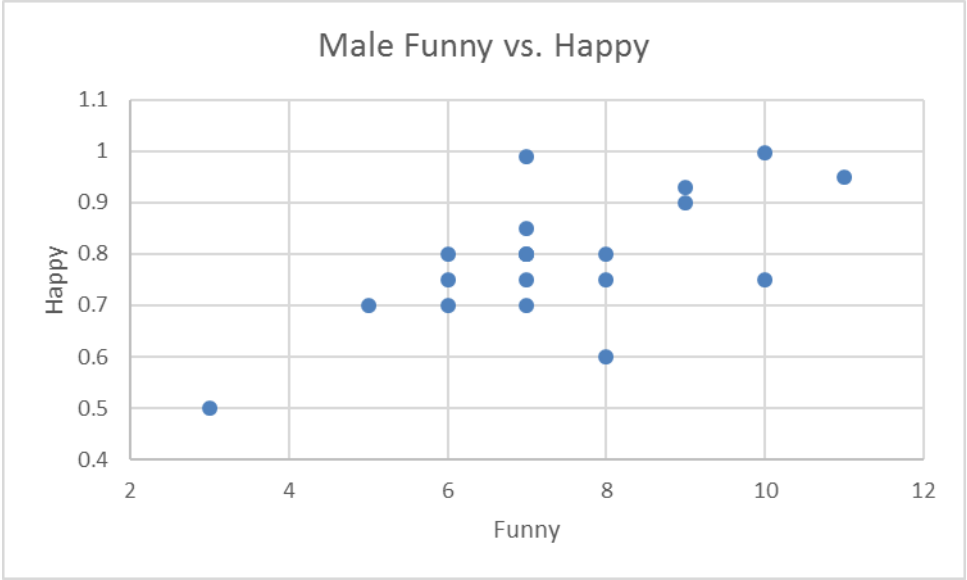
Graph Formatting Instructions:

7. Click on the chart to bring up the Chart Tools menu header, then select the Design tab. Select the Add Chart Element button.
8. Under Axis Titles choose Primary Horizontal Axis.
9. Highlight the Axis Title on the graph and rename it Funny.
10. Under the Add Chart Element button again select Axis Titles choose Primary Vertical Axis.
11. Select the Axis Title on the graph and rename it Happy.
12. Right Click the Chart Title and select Edit Text
13. Rename the Chat Title “Male Funny vs. Happy.”
14. To adjust the scale of the chart double click on the values on the y-axis. Under the Format Axis menu, select the Axis Options and the last option. Change the bounds of the graph to update to the desired Minimum and Maximum values.
15. Repeat step 14 for the x-axis.





This is what your final output should look like after completing steps 7-15:



Calculate the Correlation:

16. To calculate the correlation between Funny and Happy, click in an empty cell and type the function: **=CORREL([select column 1],[select column 2])**. For our example the data is found in columns B and C so the function reads: **=CORREL(B:B,C:C).**
17. This provides the correlation between the two variables.