Memo

To: Colleagues
From: Roger Bakeman
Date: April 10, 2021
Re: How to Transfer a Correlation Table from SPSS to Microsoft Word

Problem. This memo shows how to create correlation tables in a Microsoft Word document beginning with SPSS output in a way that is easy, accurate, and relatively free of error.

Step 1 (SPSS). Select *Analyze* > *Correlate* > *Bivariate*. In the Bivariate Correlations dialogue box, uncheck *Flag significant correlations* (unintuitively, the syntax is /PRINT SIG; if you leave the box checked, the syntax is /PRINT NOSIG). With the box unchecked, correlations are displayed without asterisks. This means that when you copy a correlation table all variables will be numeric; if any had asterisks, they would be copied as string variables. Additionally, I would recommend checking *Show only the lower triangle* and *Show diagonal*.

Step 2 (SPSS). After selecting variables and *OK* (or running from syntax), select and *Copy* (right click) the correlation table displayed in the SPSS output.

Step 3 (Excel). *Paste* (right click) into an Excel spreadsheet. Be sure to use *Paste (P)* and not *Match Destination Formatting (M)*. Next (table still selected after paste), on the Home menu, Alignment tab, select *Wrap Text* and on the Merge & Center dropdown box select *Unmerge Cells*. With Paste (P), numbers are copied with their full precision; with *Match Destination Formatting (M)*, they will be truncated to the three digits after the decimal point displayed, which can cause double-round errors as discussed in Step 5.

Step 4 (Excel). The first row of the correlation table, beginning in Column 3, consists of the variable names; Columns 1 and 2 are blank. Enter a word (like "stat") in the second column of the first row, thus providing it a label. The remaining rows consist of groups of three rows for each variable. The first column in the first row of each group contains the variable name. The second column contains labels for the three rows: Pearson Correlation, Sig. (2-tailed), and N. Select the table, including the first row of labels. Then, on the Data menu, Sort and Filter tab, select *Sort*. In the Sort dialogue box make sure *My data has headers* is checked. Then select "stat" under *Column* on the *Sort by* drop-down box and *OK*. This brings all the rows containing *N*s, correlations, and *p* values together.

Step 5 (Excel). Select the correlations in the table, then *Format Cells...* (right click). In the Format Cells dialog box, select *Category: Custom*. In the box under *Type* that contains the default "General" replace "General" with "#.00" (a custom format). This formats all correlations with two digits after the decimal point and without the leading zero, per APA guidelines. In particular, this procedure will round correlation coefficients to two digits, avoiding the double-round error.

Likewise, select the *p* values in the table, then *Format Cells...* (right click). In the Format Cells dialog box, select *Category: Custom*. In the box under *Type* that contains the default "General" replace "General" with "#.000" (a custom format). This displays all *p* values with three digits after the decimal point and without the leading zero.

What is the double-round error? SPSS rigidly—and in my view wrongly—prints correlation coefficients with three digits after the decimal point and with a leading zero. There appears to be no option to change this. The unalert among us then round to two digits from the three-digit display. This can be incorrect. If the correlation coefficient is .03446..., for example, rounded to three digits it is .035, but rounded to two digits it is .03. Rounding the three-digit display to .04 is a double-round error; it should be .03.

Step 6 (MS Word). Now, select the correlation table in Excel, *Copy* (right click), and Paste (right click) into a MS Word document. It will paste as a MS Word table. You can then edit the MS Word table as appropriate.

Options. In Excel, I find it convenient to use conditional formatting to note weak, medium, and strong correlations with yellow, green, and red and significance levels less than .01 with red and less than .05 with green.

Also, in SPSS output minus signs are rendered as hyphens and em dashes as double hyphens (on the diagonal). They should be changed to actual minus signs and actual em dashes (2212 and 2014 in Unicode hex). In MS Word, on the Insert menu, Symbols tab, select *Symbol, then More Symbols,* and then enter the hex code in the *Charter code* box with the *from:* dropdown box showing *from Unicode (hex)*. (Shortcut key for em dash is Ctl+Alt+hyphen on the numeric keyboard; shortcut key for minus sign is Alt+M in my APA paper and memo templates).