

7 Select the "Output Range:" Radio Button

This option allows you to display the results on the same worksheet that contains your data. This selection is convenient when you are not analyzing a huge dataset.

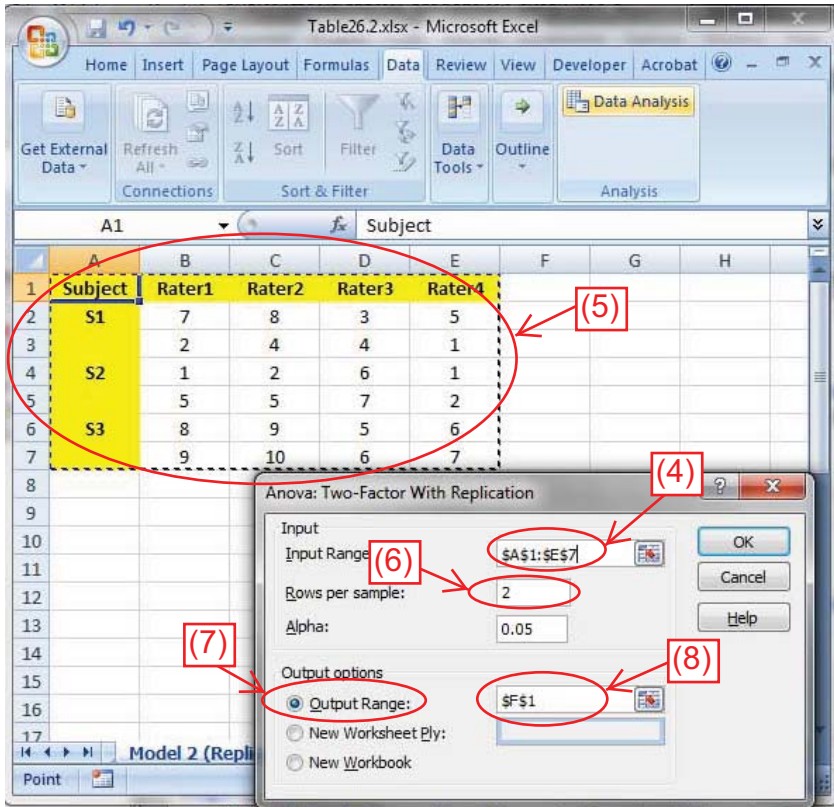


Figure 4.5. Describing Input Data & Output Parameters

- 8 **Click Inside the Text Box Associated with the Output Range Radio Button, then Click on Cell F1 (on the right-hand side of "Rater4")**

This operation aims at telling Excel where you want the results to be displayed. In this case, Excel will use cell F1 as the starting point for displaying the results. In a different problem, use a cell with a sufficiently large room on the right side for Excel to output the results.

Figure 4.6

- 9 **Look at the First Part of the Results**

The first part of the results is shown in Figure 4.6. You may look at it for verification only. It gives you basic statistics on the dataset used in the analysis. For example you may verify the number of observations per subject and per rater to see whether the entire input dataset was captured.

Figure 4.7

- 10 **Get the Means of Squares from the Second Part of the Results**

The second and more interesting part of the results is shown in Figure 4.7. The 4 numbers highlighted in yellow must be your focus. These numbers are defined as follows:

- TMS = 34.625 (The Target Mean of Squares),
 - RMS = 7.264 (The Rater Mean of Squares),
 - IMS = 5.847 (The Interaction Mean of Squares),
 - EMS = 3.708 (The Error Mean of Squares).
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- If Model 2 applies to your situation, and the unit of analysis is the rater’s raw score (i.e. no averaging), then the ICC is obtained as follows:

$$ICC_2(2, 1) = \frac{34.625 - 5.847}{34.625 + (4 \times 2 - 1) \times 3.708 + (4 - 1) \times (5.847 - 3.708) + 4 \times (7.264 - 5.847)/3}$$

$$= 0.4177.$$

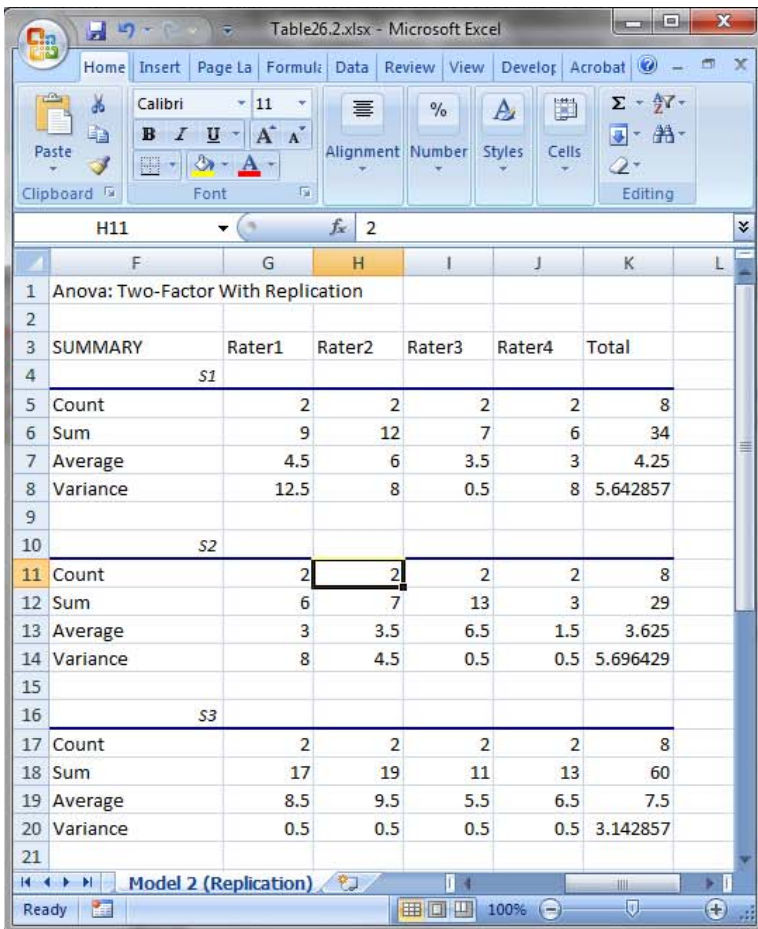


Figure 4.6. Part 1 of 2-Way ANOVA Analysis With Replication

- If Model 2 applies to your situation, and the unit of analysis is the average score across raters (there will still be 2 replicate measurements per subject), then the ICC is obtained as follows:

$$ICC_2(2, r) = \frac{34.625 - 5.847}{34.625 + (2 - 1) \times 3.708 + (7.264 - 5.847)/3}$$
$$= 0.7416.$$

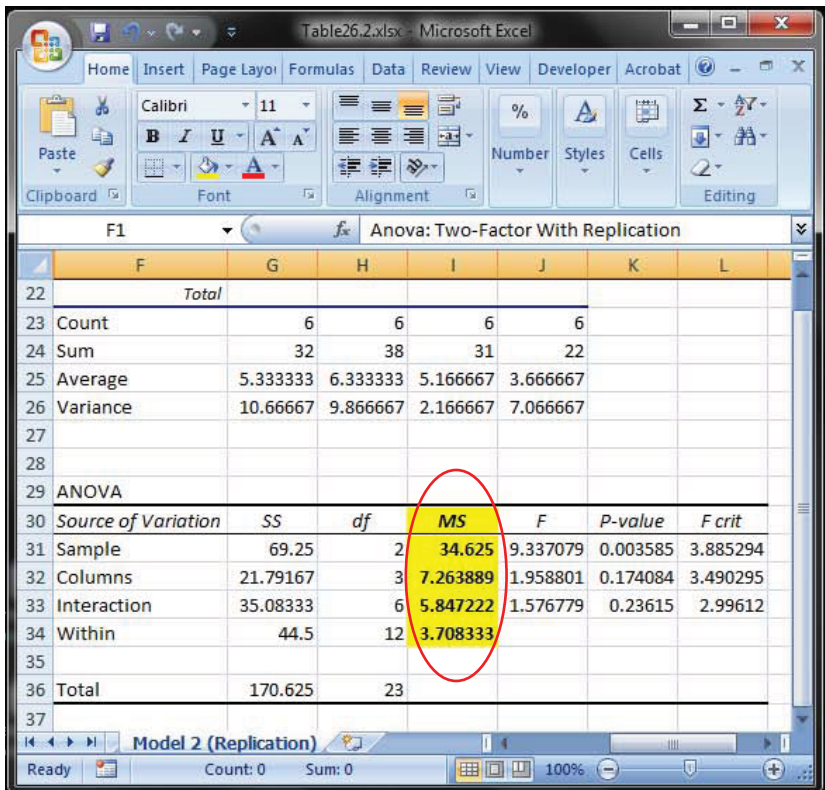


Figure 4.7. Part 2 of the 2-Way ANOVA Analysis With Replication

- If Model 3 applies to your situation, and the unit of analysis is the rater's raw score (i.e. no averaging), then the ICC is