

Data Analysis: Using SPSS

1. Crosstabs

Purpose: To test if two (2) nominal variables are related.

Process:

1. Click on "Analyses"
2. Click on "Descriptive Statistics"
3. Click on "Crosstabs"
4. Select the dependent variable and move to "Rows".
5. Select the independent variable and move to "Columns".
6. Click on "Statistics" and check "Chi Square". Click on "Continue".
7. Click on "Cells" and check "Row", "Column", and "total" percentages. Click on "Continue".
8. Click on "OK".

2. T-test

Purpose: To test if the means for two (2) groups differ.

Dependent Variable: interval data

Independent (grouping) variable: nominal with only 2 groups

Process:

1. Click on "Analyses"
2. Click on "Compare Means"
3. Click on "Independent Samples T Test"
4. Select the dependent variable and move to "Test Variable".
5. Select the independent (grouping) variable and move to "Grouping Variable".
6. Click on "Define Groups" and insert the number codes for each group (e.g., 1 and 2).
7. Click on "OK".

3. ANOVA [Analysis of Variance]

Purpose: To test if the means for two or more groups differ.

Dependent Variable: interval data

Independent variable (s): nominal data

Process:

1. Click on "Analyses"
2. Click on "General Linear Model"
3. Click on "Univariate"
4. Select the dependent variable and move to "Dependent Variable".
5. Select the independent variable(s) and move to "Fixed Factors".
6. Click on "Options" and move each factor and their interactions to "Display Means". Check "Descriptive Statistics". Click on "Continue".
7. Click on "OK".

4. One-Way ANOVA

Purpose: To test if the means for two (2) or more groups differ.

Dependent Variable: interval data

Independent (grouping) variable: only one nominal variable permitted

Process:

1. Click on "Analyses"
2. Click on "Compare Means"
3. Click on "One-Way ANOVA"
4. Select the dependent variable and move to "Dependent Variable".
5. Select the independent (factor) variable and move to "Factor".
6. Click on "Post Hoc" and check "Duncan".
7. Click on "OK".

5. Regression Analysis

Purpose: To test the relative impact of a set of independent variables on one (1) dependent variable.

Dependent Variable: interval data

Independent variable (s): interval data or dummy variables

Process:

1. Click on "Analyses"
2. Click on "Regression"
3. Click on "Linear"
4. Select the dependent variable and move to "Dependent Variable".
5. Select the independent variable(s) and move to "Independent Variables".
6. Click on "OK".

6. Compute Variables

Purpose: To create new variables (e.g., add variables, subtract variables).

Process:

1. Click on "Transform"
2. Click on "Compute Variable"
3. In the "Target Variable" space, type a name for your new variable (e.g., NEWVAR) (no spaces – 8 characters or less)
4. In the "Numeric Expression," type your equation.
5. Click on "OK" and the new variable (NEWVAR) will be at the end of your data file.
6. Save the data file each time that you create new variables!

7. Recode Variables

Purpose: To change the codes for a variable(s) in your data file. You "recode" into the same variable or into a new variable.

Process:

1. Click on "Transform"
2. Click on "Recode into Same Variable" or "Recode into a Different Variable"
3. You must move the variable to be recoded from the left column to the right.
4. Click on "old and new values" to set what those are.
5. Once all is set, click on "OK" and the codes will be revised accordingly in your data set.
6. Save the data file after each of these transformations.