



SPSS Assignment – Part 1

For the SPSS Assignment, you will choose one of the posted datasets to perform an analysis on, and produce a short summary of your results.

For part 1 of the assignment, you will make a plan for doing this. I will evaluate your questions and analysis plan to make sure you have the right understanding of the data, levels of measurement, applicable tests, and that the questions meet the guidelines described below.

You will fill out the form attached to the assignment page and fill it out according to these steps using simple point form.

- 1) Choose one of the posted datasets.
- 2) Come up with two hypotheses or research questions about the data
 - Your two questions/hypotheses must be different enough that they require different tests in SPSS to analyze.
 - They should not be too simple, so that you can demonstrate usage of more than a couple of SPSS tests. Consider questions that would require things like select cases, split file, recoding, or more advanced tests like two-way ANOVA, post-hoc testing etc.
- 3) In each of your hypotheses or questions:
 - a. Identify the dependent variable(s) and independent variable(s) (or just the variables if it's correlational) by name in the data and described in plain language.
 - E.g., Q1a – “Age”, edu_level – “level of education”
 - b. Identify the levels of measurement of your variables, and if it's nominal or ordinal, list the possible values of it
 - E.g., Nominal (yes or no), ordinal (Never, sometimes, often), scale
 - c. If applicable, describe any recoding or computations you will need to do to get the variables you want from the data in its original form.
- 4) Based on your questions/hypothesis, and the levels of measurement of your variables, identify the test in SPSS you will use for the analysis.
 - See chart on the next page and the week 8 PowerPoint for guidance on which to use.
- 5) Identify the type and configuration of Chart in SPSS you would use to visualize the result for each.

You will then use this plan, with any feedback and recommended changes I suggest, to go forward with Part 2 of the assignment.

- Page 2 shows the guideline on how to choose the right test from the week 8 PowerPoint.
- Page 3 shows an example submission to give you a sense of what I am looking for

Choosing the right test - guidelines

Dependent Variable	Independent Variable	Comparison	Applicable Test(s)
Nominal (Binary)	Categorical – 2 groups	Between Subjects	Chi-Square test for independence / Binary logistic regression
		Within-Subjects	McNemar test
	Categorical – 3+ more groups	Between Subjects	Chi-Square test for independence / Binary logistic regression
		Within-Subjects	Cochran's <i>Q</i> test
Ordinal	Categorical – 2 groups	Between Subjects	Mann-Whitney <i>U</i> test
		Within-Subjects	Wilcoxon Signed-Rank test
	Categorical – 3+ more groups	Between Subjects	Kruskal-Wallis test
		Within-Subjects	Friedman test
Scale	Categorical – 2 groups	Between Subjects	Independent-samples <i>t</i> test
		Within-Subjects	Paired-samples <i>t</i> test
	Categorical – 3+ more groups	Between Subjects	One-way ANOVA
		Within-Subjects	Repeated measures ANOVA
	Ordinal	Between Subjects	One-way ANOVA / <i>t</i> test
		Within-Subjects	Spearman correlation / Linear regression
	Two categorical variables that might interact	Between Subjects	Two-way ANOVA
		Between Subjects and Within-Subjects	Mixed ANOVA
Nominal (Binary)	Scale	Correlation / Prediction	Phi / Cramer's <i>V</i> / Binary logistic regression
Ordinal			Spearman rho correlation / Ordinal logistic regression
Scale			Pearson <i>r</i> correlation / Linear regression

Remember: For this class you can treat Likert Scale type variables (e.g., Strong Agree to Strongly Disagree) as Scale data.

Example Submission

RAPP 5015: SPSS Assignment Part 1

Name: Brendan Beckett

Dataset: Woodchuck_data_2021.xlsx

Question 1: How much wood would a woodchuck chuck if a woodchuck could chuck wood?

Independent variable:

- Name in dataset: CAN_CHUCK
- Description: Ability to chuck wood
- Level of measurement: Nominal (yes/no)

Dependent variable:

- Name in the dataset: WOOD_CHUCKED
- Description: Units of wood chucked
- Level of measurement: Scale

Plan:

- 1) Recode WOOD_CHUCKED into new variable to create CAN_CHUCK, where 0 becomes 0 meaning "No", and 1 through highest becomes 1 meaning "Yes."
- 2) Select cases to only include woodchucks, not beavers or groundhogs.
- 3) Because there are two groups in the independent variable (yes and no) and the dependent variable is a scale-level variable, I will use the independent-samples t-test.
- 4) To visualize, I will use a boxplot showing the difference in wood chucked between woodchucks that can chuck wood and woodchucks that cannot.

Question 2: [Something correlational]

Variable 1:

- Name in dataset: ...
- Description: ...
- Level of measurement: Scale ...

Variable 2:

- Name in dataset: ...
- Description: ...
- Level of measurement: ...

Plan: etc...