Basic SPSS Tutorial: chapter 4 Descriptive Statistics, extra assignments

This is a first set of extra assignments (1-8) related to descriptive statistics in *Basic SPSS Tutorial*. All computer related operations are placed in a blue-shaded box with the ⌨ symbol. References to Basic SPSS Tutorial are indicated with BST.

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Download the data set PRACTICE.SAV from the web page: http://study.sagepub.com/basicspss. Start SPSS and open PRACTICE.SAV (BST: section 2.2).

Open also a text file in the program Word or any other word processor where you store your answers to the questions below.

1. How many men and women are in the file? (Suggestion: to answer this question a frequency table comes in handy (see BST: section 4.2).

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Take a look at the variables. In SPSS use 'Variable View', see BST: Figure 2.2/2.3.

2. Tabulate all the variables and indicate their level of measurement (for nominal & ordinal see BST, p.50, 4. Crosstabs, for interval and ratio (= interval + absolute zero-point) see BST: p.49, 2. Descriptives). Note that SPSS already indicates a level (see 'measure') but this might be wrong.

In BST section 4.2, frequency tables and graphs are discussed, along with mean, median, and quartiles. Below you will find exercises related to these topics.

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Create a frequency table and a histogram (BST: section 4.2) for the variable *Age* and let the program calculate median, mode, mean, and standard deviation.

3. Why does a frequency table not only contain absolute counts but also relative counts (i.e., percentages)?

4. Take a look at the age histogram, what is most important to note?

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> Turn the extreme score (BST: section 2.3.4) 998 in the *Age* variable to missing and create the histogram again together with Median, Mode, Mean, and standard deviation.

5. Compare the mean to the median with and without score 998. What is different and what is the explanation for the difference?

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> Copy the *Age* histogram and the measurements for the center and the variation WITHOUT all extreme scores 998 into your text file (see BST: p. 69).

6. Give a full description of the age variable. Pay attention to:
   - **the shape** (see the histogram), is it symmetrical, hill-shaped, skewed?
   - **the center** (Mode, Median, Mean).
   - **the variation** (Standard deviation), what does it mean?

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> Create a pie chart for the variable *Education* (add the exact percentages to the chart, see BST: section 4.3). Copy the pie chart to your text file (BST: section 4.7).

7. Give a full description of the pie chart: how are all respondents distributed across all educational levels?

8. Is it instructive to calculate the mode, the median and/or the mean for *Education*? Please explain why or why not.