SPSS Exercise 5 Creating and Index Due:

An index is a measure of a single general concept or dimension that is composed of several individual items. Put another way, an index is a measure that is made when two or more measures are combined.

Objectives:

- 1. Learn to create an index
- 2. Learn to interpret index scores

SPSS Procedure:

- 1. From the toolbar select Transform -> Compute Variable (See Figure 5.1). This will cause a window similar to that in Figure 5.2 to open.
- 2. Under "Target Variable" type in the name of the index about to be created, "empathyINDEX" in this instance. **Note that the Target Variable name should never have spaces nor should it use special characters**.
- 3. Correct the variables to be used. Note this direction is only available in class.
- 4. Use the variables "emapthy1", "empathy3", "empathy2R", and "empathy4R" to create an index to measure empathy among the respondents in our sample. Under "Numeric Expression" enter the formula to create. (empathy1+empathy3+empathy2R+empathy4R)/4. The equation is divided by 4 because that is the number of variables in the index.
- 5. Hit "OK"
- 6. Run a frequency distribution for empathyINDX
- 7. Note when describing how an index is made it is expected that the variables used to create the index are explicitly discussed. This includes a description of what is asked and a discussion on variables that have been transformed and why.

Reading the Output:

Figure 5.3 is a simple frequency distribution. It can be read as discussed in SPSS Exercise 2 but there are a couple of things to know.

- 1. Check the range of the values being displayed. If there is a value/attribute smaller or larger than in one of the original variables used to create the index there maybe a problem.
- 2. Be clear on the direction of the values/attributes. Does a high number mean more or less of what the index is measuring? In this instance, the higher the value the more empathetic respondents are relative to one another. For example, if a person had an empathyINDEX score of 4.0 we don't really know how empathetic that person is we only know they are more empathetic than a person who scored 3.75 on the index and less empathetic than someone who scored a 4.25.

Displaying the Data & Analyzing the Table:

Instruction for this is available in SPSS Exercise 2

Assignment:

- 1. Create an index for empathy using the variables and procedure discussed above.
- 2. Write a report where the following are discussed:
 - a. What an index is for and what they are used for.
 - b. Describe how the empathy index was created. Do so by:
 - i. Specifying each of the variables used. Don't just name each variable; also present what each question is asking.
 - ii. Discuss any recoding of variables that was necessary for the index and why it was needed.
 - c. Answer the following question: Do people in the sample tend to have high or low levels of empathy? What evidence do you have to draw this conclusion?
- 3. Submit the output for the frequency distribution of empathyINDEX and the code you used to create it with the report.

Figure 5.1. SPSS Statistics File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Add-ons Window Help 🎄 🛜 74% 🔳 Tue 8:48 AM Q 🔚 Programmability Transformation... - IBM SPSS Statistics Data Editor Count Values within Cases... Shift Values... Values

Recode into Same Variables...

De Recode into Different Variables...

Recode into Different Variables... 🔪 Input 🔪 Input hlth5 Numeric 1 0 III Automatic Recode... {0, NAP}... 0, 8, 9 Automatic Recode...

Create Dummy Variables

30, NAP}... 0, 98, 99 Numeric 1 0 H/ Visual Binning...
Numeric 1 0 FA % Optimal Binning...
Numeric 1 0 FA Anonymize Variables
Numeric 1 0 Si Prepare Data for Modeling (0, NAP)... 0, 98, 99 7 (0, NAP)... 3 - 9, 0 8 13 Right {0, NAP}... 0, 8, 9 Right > Input {0, NAP}... 0, 8, 9 8 {0, NAP}... 0, 8, 9 8 & Nominal 15 Right (0, NAP)... Numeric 1 0 SH Prepare Data for Numeric 1 0 RI Rank Cases... 16 Right > Input & Nominal empathv1 Right
 Numeric
 1
 0
 RI
 ■ Rank Cases...
 (0, NAP)...
 (0, 9, 8
 10

 Numeric
 1
 0
 RI
 ➡ Date and Time Wizard...
 (0, NAP)...
 (0, 9, 8
 10

 Numeric
 1
 0
 RI
 ➡ Create Time Series...
 (0, NAP)...
 (0, 9, 8
 10
 18 Right & Nominal 🔪 Input Nominal 19 emnathy3 Right ot Replace Missing Values... (0, NAP)...
R andom Number Generators... (0, NAP)... 0, 9, 8 empathv4 Numeric 10 Right & Nominal \ Input 21 empathy5 Numeric 1 0 0, 9, 8 10 Right & Nominal > Input Rt Run Pending Transforms ^G (0, NAP)... 0, 9, 8 10
 Numeric
 1

 Numeric
 1
 0

 8
 2
 empathy6 Numeric 1 0 Right & Nominal > Input R describes oneself as a soft-hearted person {0, NAP}... 0, 9, 8 empathy7 Right & Nominal > Input wrkstatR RECODED Labor Force Status [.00, Not Ap... .00, 9.00 Right 10 & Nominal nput 🔪 Numeric 2 {1.00, 18-3... 99.00, 98.00 10 Right Recoded Respondent's Age & Nominal Input Numeric Recoded Respondent's Religion {.00, NAP}... .00, 98.00, ... 10 nput 🔪 religR Right & Nominal Recoded: R Does not feel very sorry for people having problem {.00, NAP}... .00, 8.00, 9.... 11 Right & Nominal Input empathy2R Numeric {.00, NAP}... .00, 8.00, 9.... 11 Recoded: Others misfortunes do not disturb R Right & Nominal \ Input Recoded: R does not feel pity for someone treated unfairly {.00, NAP}... .00, 8.00, 9.... 11 Right Data View Variable View

Figure 5.2.

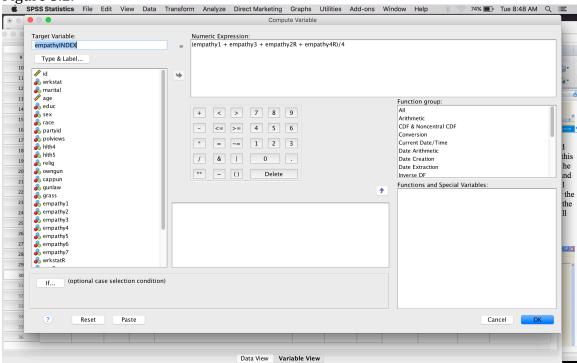


Figure 5.3.

