**M1 Assignment (35 points)**

**Instruction:**

1. Review the *Assignment Guides*,which contains tutorials on how to show the math/process work and examples of assignment answers.
2. Use this Word document to fill in the answers to the questions. You must type out a clear answer to each question, *even if the answer is also contained in the SPSS output*.
3. Download the data file for this assignment and use it to answer all the questions in this assignment. Import the data into SPSS if instructed to do so.

**About M1 Data Set**

Use *Data for M1 Assignment* for all the questions in this assignment. The data were collected from a group of students in the psychology online master’s program. The questionnaire included questions about their age, their employment status, their average number of minutes of cell phone usage per day, the computer type they use for schoolwork, the time zone of their physical location, and the number of hours of sleep on a typical night.

**Q1. Import data into SPSS and configure the variables** **(5 points)**

Import the data into SPSS, configure the variables in the Variable View, and paste a screen shot of the variable view of the data file. (No point can be earned if the screen shot is not pasted)

-Make sure the **Measure** column is correct for all variables

(2 points total: Deduct .5 for each error up to 2 max)

-Make sure the **Values** column is specified for nominal and ordinal variables.

(3 points total: Deduct 1 point for each variable that is not specified or not specified correctly, up to 3)

**Q2. Create frequency tables for nominal/ordinal variables (6 points)**

A.Select one nominal or ordinal variable and use SPSS to create a frequency table.

Enter the variable name: \_\_\_\_\_\_\_\_\_\_\_\_\_

(1 point)

Paste the frequency table from the SPSS output below:

(2 points. Deduct 1 for each error, up to 2)

B.Select another nominal or ordinal variable and use SPSS to create a frequency table.

Enter the variable name: \_\_\_\_\_\_\_\_\_\_\_\_\_

(1 point)

Paste the frequency table from the SPSS output below:

(2 points. Deduct 1 for each error, up to 2)

**Q3. Create grouped frequency tables for scale variables (8 points)**

A. Select a scale variable and create a grouped frequency table with at least 8 bins. You may use Excel or SPSS to help you organize the data and then manually create a table in Word (in this document) to fill in the score ranges (bins), frequencies, and percentages.

Enter the variable name: \_\_\_\_\_\_\_\_\_\_\_\_\_

(1 point)

Create the grouped frequency table below and make sure it meets the following criteria:

- at least 8 bins

- equal score range for the bins

- the bins should not overlap in score range

- the bins collectively cover the whole range of scores

(3 points total: Deduct 1 for failing to meet any of the criteria above, up to 3)

B. Select a scale variable and create a grouped frequency table with at least 8 bins. You may use Excel or SPSS to help you organize the data and then manually create a table in Word (in this document) to fill in the score ranges (bins), frequencies, and percentages.

Enter the variable name: \_\_\_\_\_\_\_\_\_\_\_\_\_

(1 point)

Paste/create the grouped frequency table below and make sure it meets the following criteria:

- at least 8 bins

- equal score range for the bins

- the bins should not overlap in score range

- the bins collectively cover the whole range of scores

(3 points: Deduct 1 for failing to meet any of the criteria above, up to 3)

**Q4. Create graphs for frequency distributions (8 points)**

A. Select a nominal or ordinal variable and use SPSS to create a bar graph to show the frequency distribution. If the variable is not nominal or ordinal, no credit is earned for this graph. Paste the graph below and make sure it meets the following criteria:

- the graph has a title indicating what is presented

- the graph has labels for X and Y axes

- the graph is a bar graph

- the data plotted are correct

(4 points. Deduct 1 for failing to meet any of the criteria above, up to 3)

B. Select a scale variable and use SPSS to create a histogram to show the frequency distribution. If the variable is not a scale variable, no credit is earned for this graph. Paste the graph below and make sure it meets the following criteria:

- the graph has a title indicating what is presented

- the graph has labels for X and Y axes

- the graph is a histogram

- the data plotted are correct

(4 points. Deduct 1 for failing to meet any of the criteria above, up to 3)

**Q5.** **Descriptive statistics: Central tendency and variability (4 points)**

A. Request descriptive statistics for **CellTime**, including mean, median, max, min, standard deviation, and range. Paste the SPSS output table showing these statistics.

(2 points total: deduct 1 for each missing statistic up to 2)

B. Request descriptive statistics for **Sleep**, including mean, median, max, min, standard deviation, and range. Paste the SPSS output table showing these statistics.

(2 points total: deduct 1 for each missing statistic up to 2)

**Q6. Descriptive statistics: Central tendency and variability (4 points)**

Get the last 10 (subject ID #51-#60) subjects’ data points on variable “AGE” to be our “sample” for all the questions in Q6. Then **manually calculate** the descriptive statistics using the formulas introduced in the lectures. No credit is earned if the answer is not accompanied by the typed calculation process or explanation of how you got the answer.

A. Manually calculate the **mean** and the **median** of the sample data (N=10).

-No credit is earned if the answer is not accompanied by the calculation process or explanation of how you got the answer.

-No credit is earned if the answer is simply taken from SPSS output.

(2 points total: Each statistic =1, deduct .5 if process is correct but the result is incorrect.)

B. Manually calculate the standard deviation and the range of the sample data.

-No credit is earned if the answer is not accompanied by the calculation process or explanation of how you got the answer.

-No credit is earned if the answer is simply taken from SPSS output.

-Hint: The standard deviation (SD) is simply calculated for these data points, not to use these data points to estimate population. The formulas for these two options are different. See the lecture for more details.

(2 points total: Each statistic =1, deduct .5 if process is correct but the result is incorrect.)