Exercise 3

Central Tendency Measures

Task 1
Open your data file from Exercise 1.
Imagine that you need to classify your respondents into five categories in terms of their ages. To do so you will need to create a new categorical variable.

Recode the continuous variable Respondent's Age (**age**) into a new categorical variable (**agegroup**).
The values for the new variable will be as follows:

New Values (agegroup)	Old values (age):
1 – late adolescent	18-20
2 – young adult	21-40
3 – middle adult	41-60
4 – late adult	61-90

Note: The width of these intervals are not equal. In a *true* study, we would want the interval widths to be consistent!

In the menu bar go to Transform
- Recode
  - Into different variable…
    - Transfer "**age**" into Output variable box
      - Type the name of a new variable - **agegroup**
        - Click on Change
          - Click on Old and New Values
            - In Old values select Range and type the first range of the old values: 18-20
              - In New value type 1
                - Click on Add
                  - Repeat these steps for all old and new values
                    - Continue
                      - OK

You should have a new variable (agrgroup) with the values 1 to 4.
Now define the new variable and its value levels. (You do this under ***variable view***)
Now obtain the frequencies for agegroup:
What age group category has the least number of participants/people? _____
What age group category has the most number of participants/people? _____
What % of the sample is late adult? _____
What % of the sample is young adult? _____
What % of the sample is middle adult? _____

Task 2
Run the frequencies for the following variables: maeduc and age.
Now find the standard deviation, variance, minimum and maximum values for these variables.
To do so, in the main menu bar go to:
- Analyze
  - Descriptive Statistics
    - Frequencies
      - Click on the selected variables in the left box and transfer them to the Variable(s) box by clicking the right arrow.
        - In the same window click on Statistics…
          - Select appropriate statistics
            - Continue
              - Charts…
                - Histogram
                  - Select Display normal curve
                    - Continue
                      - OK

Variable	Mean	Median	Mode	Maximum	Shape
Age					
Maeeduc					

Task 3

Run frequencies for the variables age and years separately for males and females.
To do this we need to select the cases according to respondent's gender.
To run the frequencies for each gender we will first select males, run the frequencies for males, and then select females and run the frequencies for females.

To select males:

- Go to Data
  - Select cases
    - If condition is satisfied
      - If…gender =1 (Select Gender, click arrow, then select function =1)
        - Continue (**Please note:** Unselected cases should be **FILTERED** as deleting the cases will delete them *forever*!)
          - OK

You have now selected only the **males**. Until you re-select everyone, reset the select feature, *or* select only females, all the statistics you do from this point forward will be based only on **males**!

Next we need to run the frequencies:

- Analyze
  - Descriptive Statistics
    - Frequencies
      - Statistics
        - Move maeduc and age variables into Variable(s) box.
          - Click on the boxes of standard deviation, variance, skewness, minimum, maximum, mean, mode, and median.
            - Continue
              - OK

Your SPSS output will present your frequencies for males only. Note your sample size is *smaller* then it was during task 2. We have *excluded* the females from this analysis!
Next, you will have to repeat these steps for analyzing the data for females.
Before selecting females you will need to reset the data. In order to do so go to

- Data
  - Select Cases
    - Reset

Now select only females using the following procedure and then re-run the frequency analysis.

- Go to Data
  - Select cases
    - If condition is satisfied
      - If…gender =2 (Select Gender, click arrow, then select function =2)
        - Continue (**Please note:** Unselected cases should be **FILTERED** as deleting the cases will delete them forever!)
          - OK

Use your output to answer the following questions:

Variable	Mean	Median	Mode	St. deviation	Variance	Shape
Age/ M						
Maeduc/ F						