Questionnaire

1. Identification number. ☐☐☐
2.Gender ☐
   1:male
   2: female
3.Age(year) ☐☐
4.Education ☐
   1: No
   2: elementary
   3: secondary
   4: university
5.Body mass (kg) ☐☐
6.Height (cm) ☐☐☐
7. Eye colour ☐
   1: blue
   2: green
   3: grey
   4: brown
   5: black
8. Hobby
   sport ☐
   music listening ☐
   collecting stamps ☐
   dancing ☐
   fine arts ☐
   other..... ☐

Create variables using the questionnaire! Let' s define the following variables (no more than 8 characters are valid for name of a variable):
1.ID 2.GENDER (Nomimal) 3.AGE (Quantitative)
4.EDUCATIO (Ordinal) 5.WEIGHT (Quantitative) 6.HEIGHT (Quantitative)
7.E_COLOUR (Nomimal) 8.SPORT (Binary) 9.MUSIC (Binary) 10.STAMP (Binary)
11.DANCE (Binary) 12.FINEART (Bináris/Dichotomous) 13.OTHER (Binary)

Create this dataset using EXCEL.

ID	GENDER	AGE	EDUCATIO	WEIGHT	HEIGHT	E_COLOUR	SPORT	MUSIC
1.00	1.00	20.00	3.00	65.00	185.00	3.00	1.00	1.00
2.00	2.00	17.00	3.00	60.00	170.00	4.00	1.00	2.00
3.00	1.00	22.00	3.00	62.00	177.00	2.00	2.00	1.00
4.00	2.00	28.00	4.00	62.00	176.00	4.00	2.00	1.00
5.00	1.00	9.00	1.00	32.00	148.00	4.00	2.00	2.00
6.00	1.00	5.00	1.00	19.00	125.00	3.00	2.00	2.00
7.00	2.00	26.00	3.00	70.00	166.00	4.00	2.00	2.00
8.00	1.00	60.00	4.00	75.00	180.00	1.00	1.00	1.00
9.00	2.00	35.00	3.00	49.00	155.00	4.00	2.00	1.00
10.00	2.00	51.00	4.00	61.00	162.00	4.00	2.00	1.00
11.00	1.00	17.00	2.00	61.00	178.00	4.00	2.00	1.00
12.00	2.00	50.00	2.00	65.00	164.00	4.00	2.00	2.00
13.00	1.00	9.00	1.00	30.00	130.00	2.00	1.00	2.00
14.00	2.00	10.00	1.00	40.00	135.00	1.00	2.00	1.00
15.00	1.00	19.00	3.00	86.00	187.00	3.00	1.00	1.00
16.00	1.00	22.00	3.00	67.00	179.00	4.00	2.00	2.00
17.00	1.00	25.00	3.00	103.00	186.00	4.00	1.00	1.00
18.00	1.00	29.00	4.00	74.00	176.00	1.00	1.00	1.00
19.00	2.00	27.00	4.00	67.00	164.00	4.00	1.00	1.00
20.00	1.00	19.00	3.00	70.00	180.00	4.00	1.00	1.00

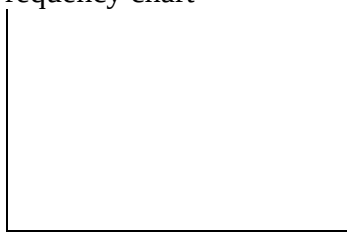
Practice
Discrete variables: Distributions, Absolute and relative frequencies, column charts

1.1. Characterize the **GENDER** variable: **GENDER** (1=boy, 2=girl).

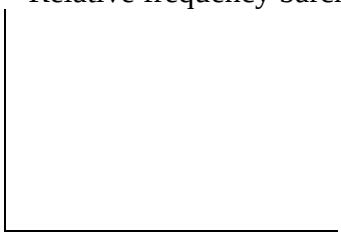
	Frequency	Relative frequency
Boy		
Girl		
Total		

Create a barchart! Make scale on y-axis!

Frequency chart



Relative frequency barchart

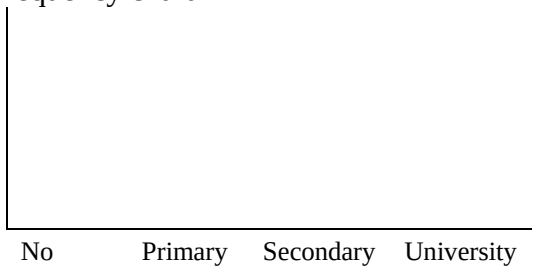


1.2. Characterize the **EDUCATIO(n)** variable!

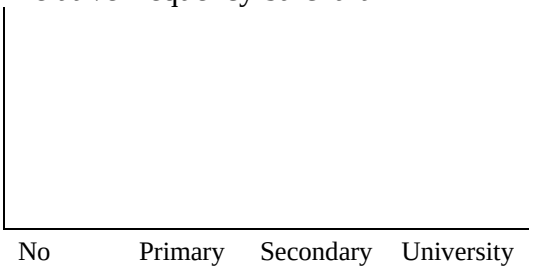
	Frequency	Relative frequency
No		
Primary school		
Secondary school		
University		
Total		

Create a barchart! Make scale on y-axis!

Frequency chart



Relative frequency barchart



1.3. Create an piechart using **EDUCATIO(n)** variable!

SPSS:

1.4. Open the SMALLQUEST.SAV data file! Repeat the characterization of both GENDER and EDUCATIO variables using SPSS commands!

1.5. Open the **Breast cancer survival.sav** data file! Characterize the discrete variables!

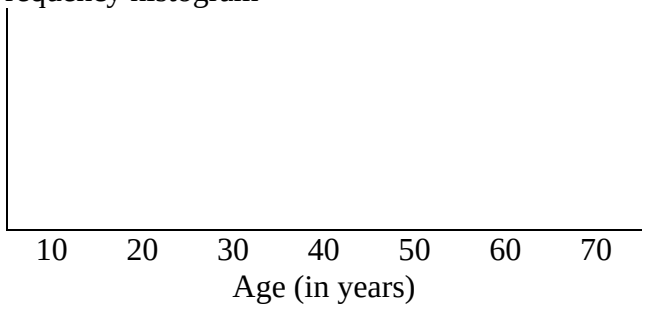
Continuous variables: Distributions, absolute and relative frequencies, histograms

1.7. Characterize the AGE variable!

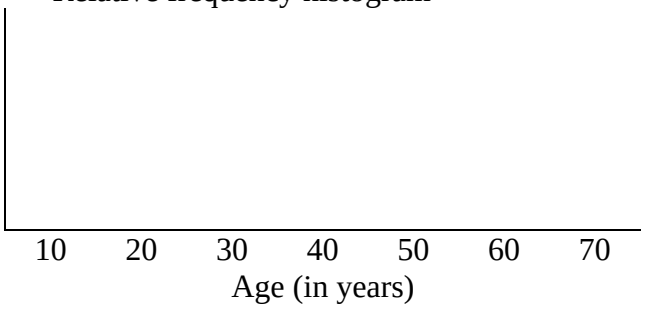
YEARS	Frequency	Relative frequency
0-9		
10-19		
20-29		
30-39		
40-49		
50-59		
60-69		
Total		

Create a HISTOGRAM using data of variable AGE! Make scale on y-axis!

Frequency histogram



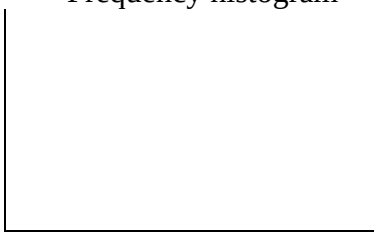
Relative frequency histogram



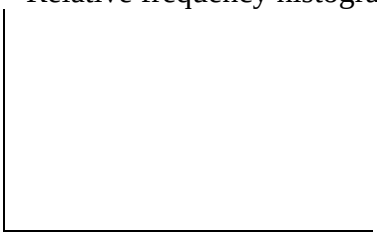
Interpret the results!
The shape of the distribution is symmetrical or skewed?.....
Which interval contains the most elements?.....
Which interval contains the fewest elements?.....

Double the interval width using the data on Table 1.7! Create a HISTOGRAM using data of variable AGE! Make scale on y-axis!

Frequency histogram



Relative frequency histogram



1.8. Characterize the WEIGHT variable as done it for variable AGE!

SPSS:
1.9. Open the SMALLQUEST.SAV data file! Repeat the characterization of both AGE and WEIGHT variables using SPSS commands!
1.10. Open the **Breast cancer survival.sav** data file! Characterize the continuous variables! Interpret the results!

Descriptive statistics

1.11. Calculate mean, median, mode, range, standard deviation of these random samples!

1.11.1. (n=4) 1 2 4 1 mean median mode range standard deviation

1.11.2. (n=4) 10 20 40 10 mean median mode range standard deviation

1.11.3. (n=4) 2 4 8 2 mean median mode range standard deviation

1.11.4. (n=4) 2 3 5 2 mean median mode range standard deviation

1.11.5. (n=6) 1 3 2 4 0 2 mean median mode range standard deviation

SPSS

1.12. Type the values of the above samples in SPSS and calculate the descriptive statistics!

1.13. Open the **Bank.sav** data file! Calculate the descriptive statistics of all the continuous variables! Interpret the results!

e.g.: salnow (current salary)

Number of cases ……..	Min ……..
Mean ……..	Max …….
SD ……..	Median ……

Compare mean with median:……

Compare the interval of mean +/– 2 SD with the range (maximum – minimum)……..

Homework

a. Create bar chart from the following data
   B B B B B E E E E E B E B B E E B B

b. Create Histogram from the following temperature values.
   35.1 36.1 35.2 36.2 36.5 36.5 37 36.2 36.8 36.7 36.5

c. Calculate mean, median, mode, range standard deviation and quartiles of the following data:
   1 3 2 4 0 2