

STATISTICS 3
WS 2017 (Mag. Thomas Forstner)

Course-Number: 366.542

- 1) An experiment is conducted on the effect of alcohol on perceptual motor ability. Six persons are tested after having two drinks and different six persons are tested after having two glasses of water. The perceptual motor ability is measured as needed seconds to go up a standardized stair.

The table below presents the time in seconds for the two groups:

	Time [seconds]					
Group A ("alcohol")	16	15	21	20	19	19
Group W ("water")	13	13	10	18	17	11

- a) Calculate appropriate descriptive figures for each group.
b) Construct an appropriate test for verifying, if there is a difference between the time time of the two groups (type I error = 5%).
- 2) A study was conducted to examine the differences between older and younger adults on perceived life satisfaction. Six older adults (over the age of 70) and six younger adults (between 20 and 30) were given a life satisfaction test (known to have high reliability and validity). Scores on the measure range from 0 to 60 with high scores indicating high life satisfaction.

The data is presented in the table:

	Life Satisfaction Score					
Group O ("older adults")	59	48	52	49	46	16
Group Y ("younger adults")	34	22	15	27	37	41

- a) Use an appropriate graphical approach to represent descriptive information for each group.
b) Construct an appropriate test for verifying, if there is a difference between the life satisfaction score of the two groups (type I error = 5%).