



**Safe driving for life:**  
changing attitude and behaviour  
through education, training and testing.





# Role of demographic variables and training time in driving test performance: A pilot study from Norway

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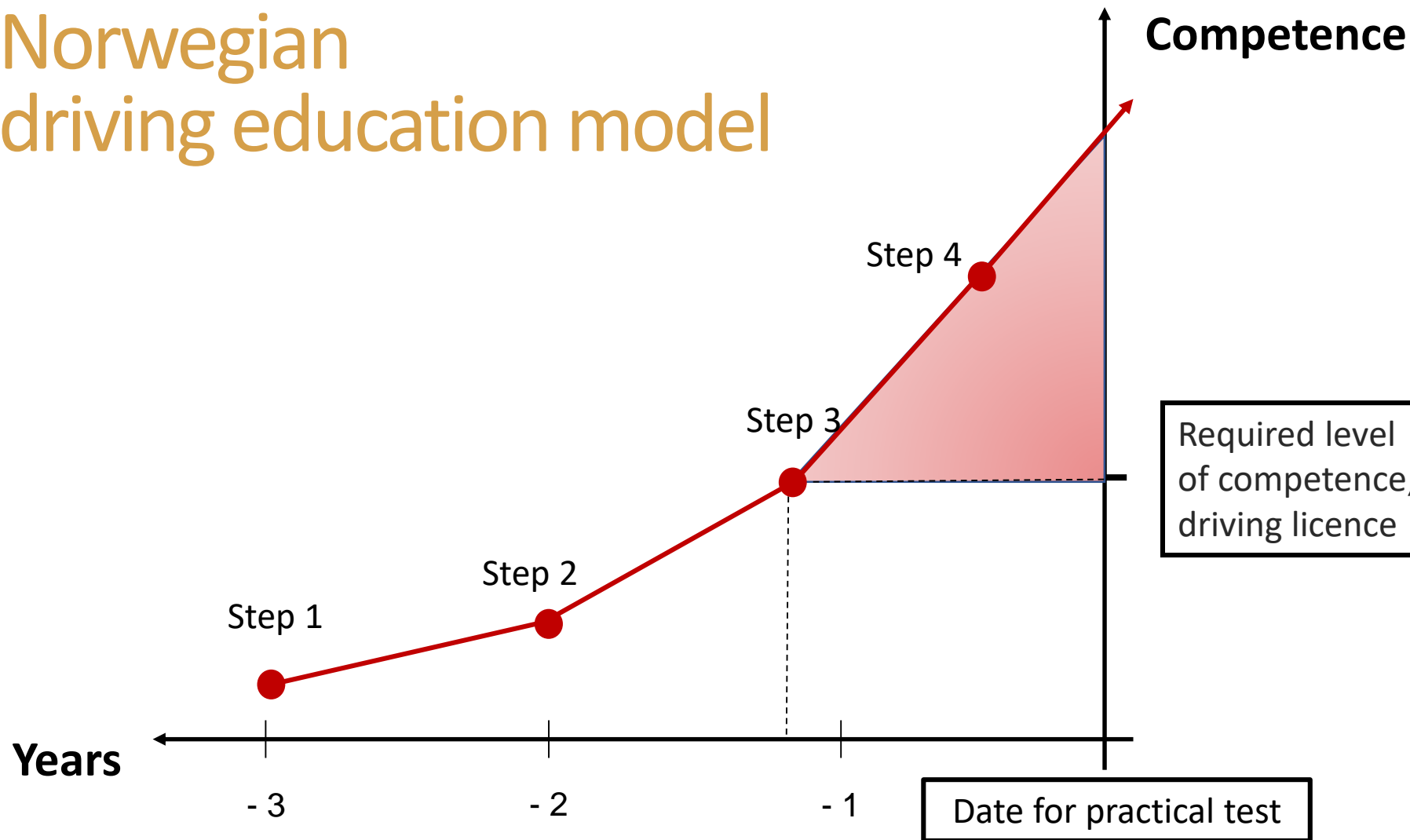


# Aims of the study

1. To provide descriptive information about the Norwegian driving education process
2. To examine the associations between demographic variables (e.g. age, gender), time spent during and between different steps and outcome (number of attempts) in both theory and practical test.

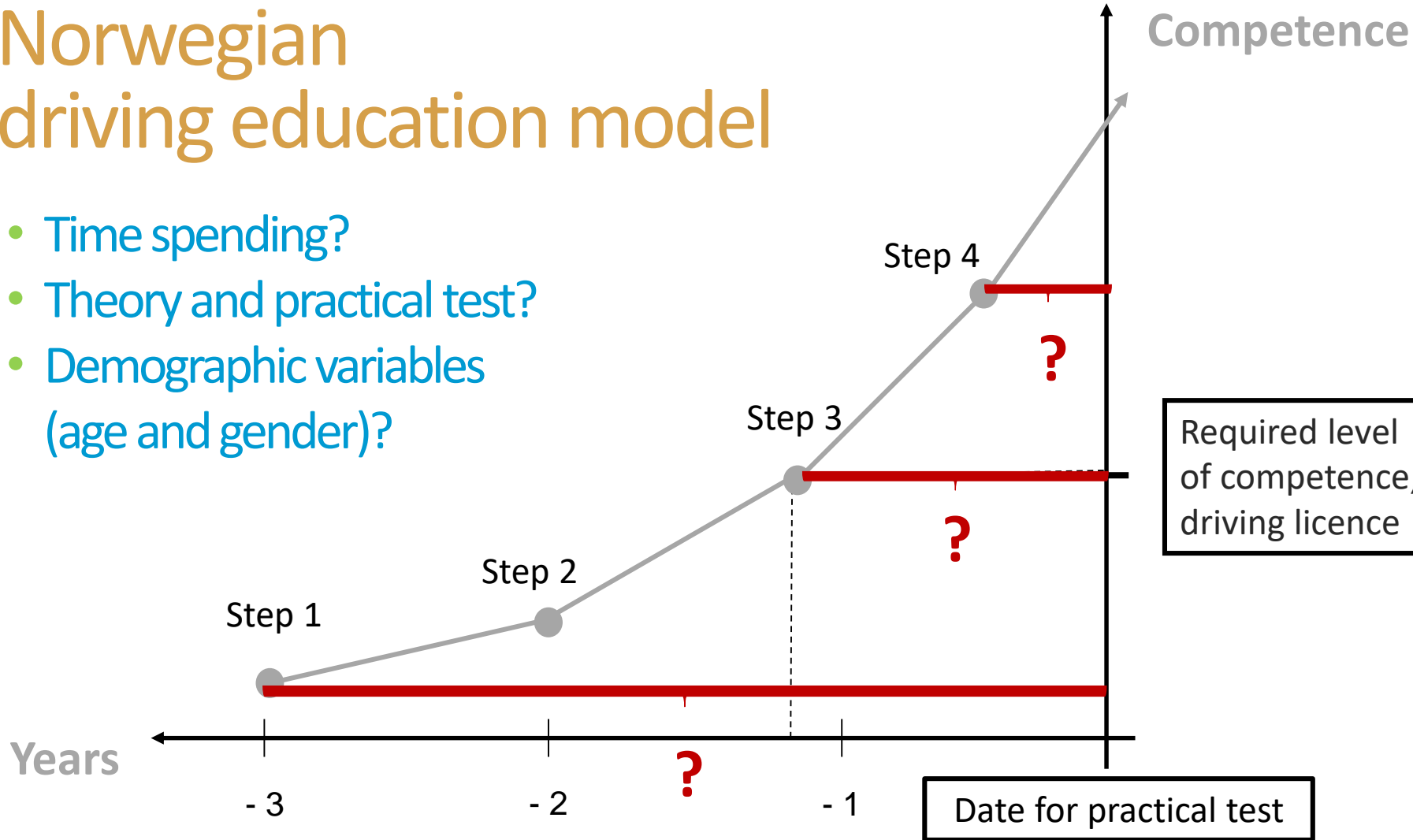


# Norwegian driving education model



# Norwegian driving education model

- Time spending?
- Theory and practical test?
- Demographic variables (age and gender)?



# Data & Procedure

- Data were taken from Norwegian Public Roads Administration database
- People who took their driving license in 2017 were included in the study
- Ethical approval for the study was taken from the NSD



# Sample Characteristics

- There were 196 persons
- 123 male (62.8%), 73 female (37.2%)
- Mean age=26.9 (SD=9.2), it varied from 17 to 57 years
- 50% (98) < 25 years, 50% (98) > 25 years
- Traffic station:
  - 49 (25.3%) took the test in a small town
  - 79 (40.7%) took the test in a medium-sized town
  - 66 (34%) took the test in a large city



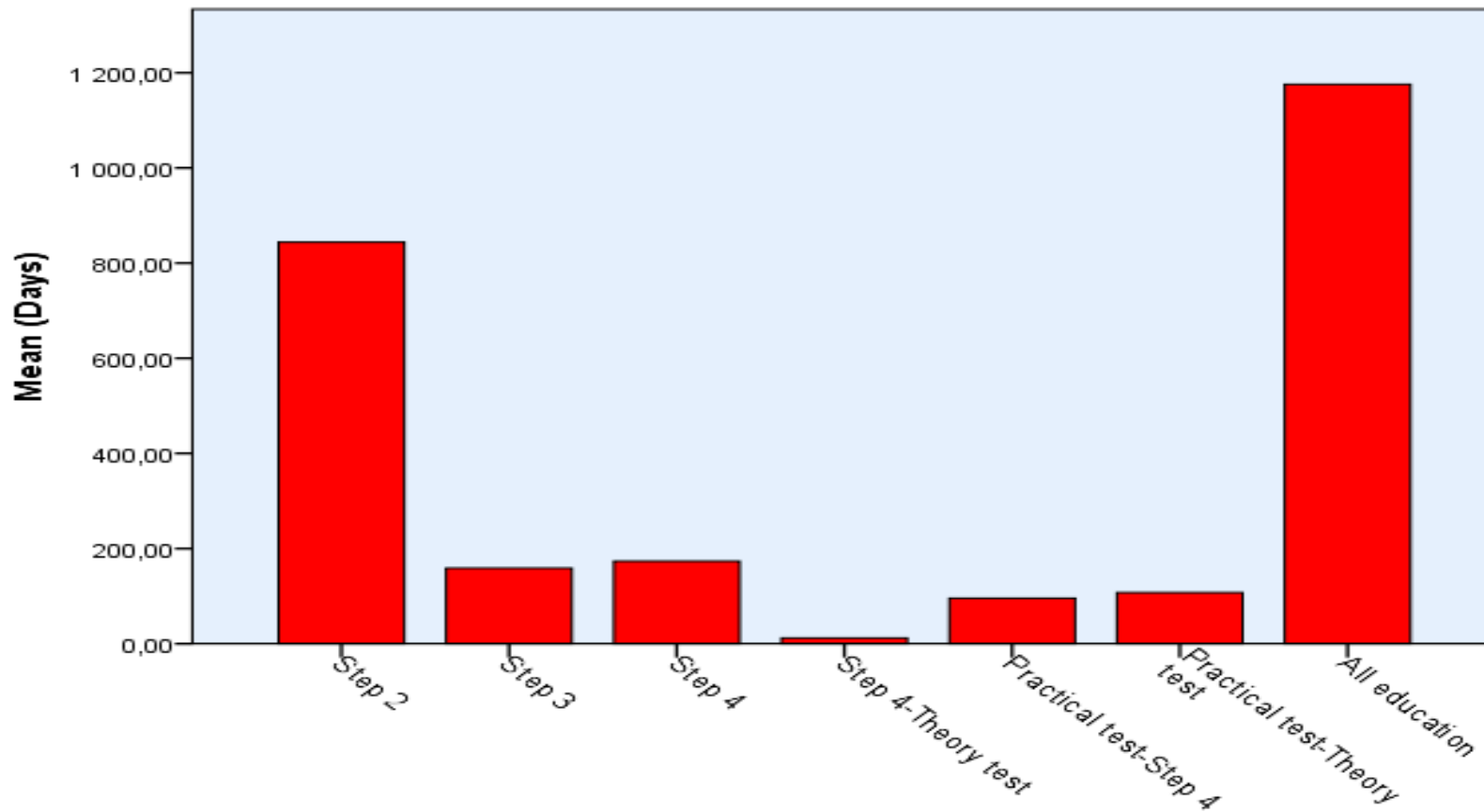
# Overview of the variables

Variable	Days		Months
	Mean	SD	
Time spent during the driving education for those below 25 years	1035.4	850.7	35
Time spent during the driving education for those older 25 years old	1292.2	1606.6	43
Time between step 1 and step 2 (<25 years)	830.3	759.2	28
Time between step 2 and step 3	153.8	396.2	5
Time between step 3 and step 4	172.35	575.7	6
Time between step 4 and theory test	16.5	276.2	0.5
Time between step 4 and practical test	94.9	274.2	3
Time between two tests	109.3	118.3	3.5
	Number of attempts in the tests		
	Mean	SD	
Theory test	1.7	1.3	
Practical test	1.3	0.7	

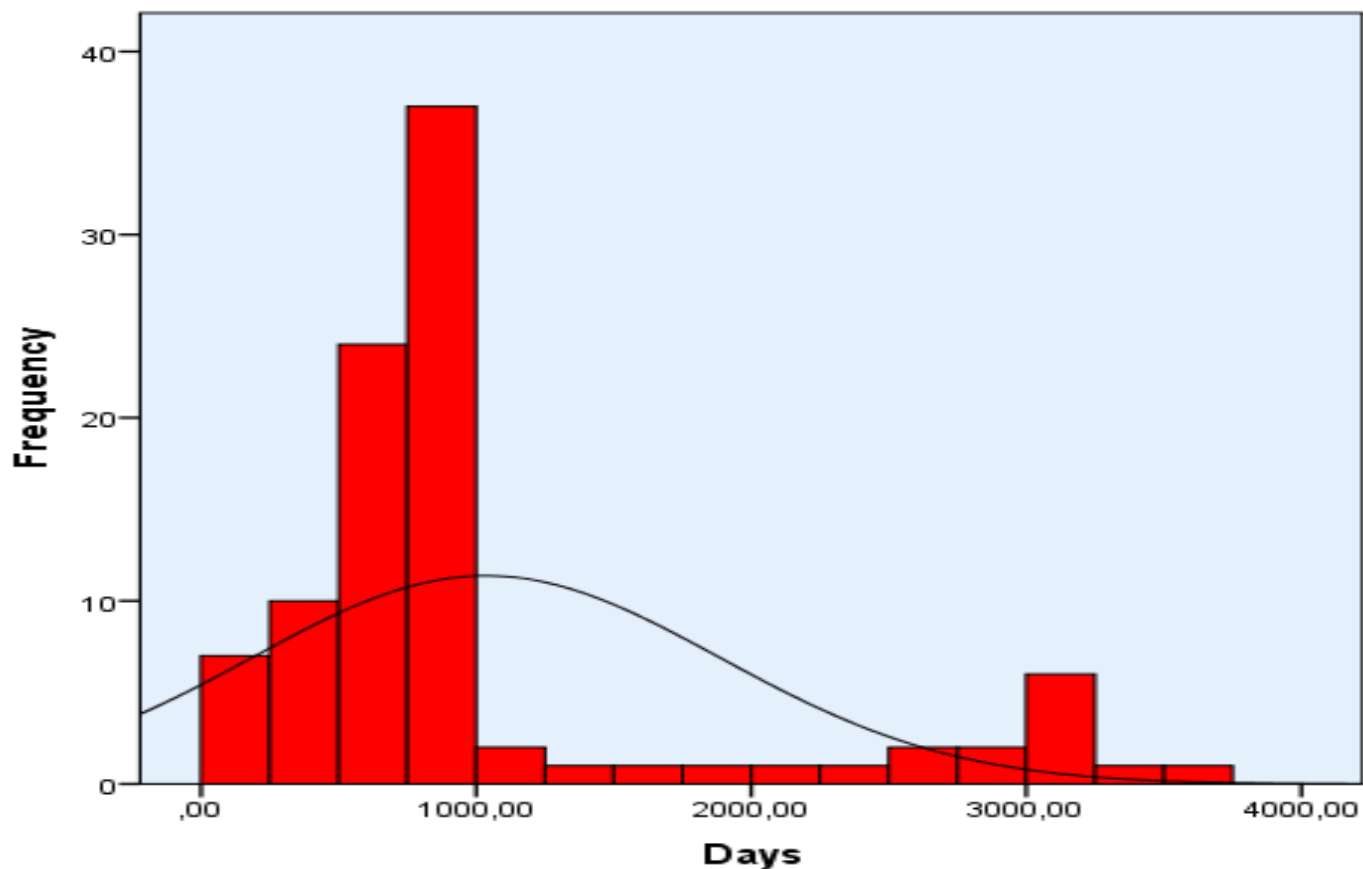




# Time spent for different steps in driving education



# Time spent during all driving education (<25 years old)

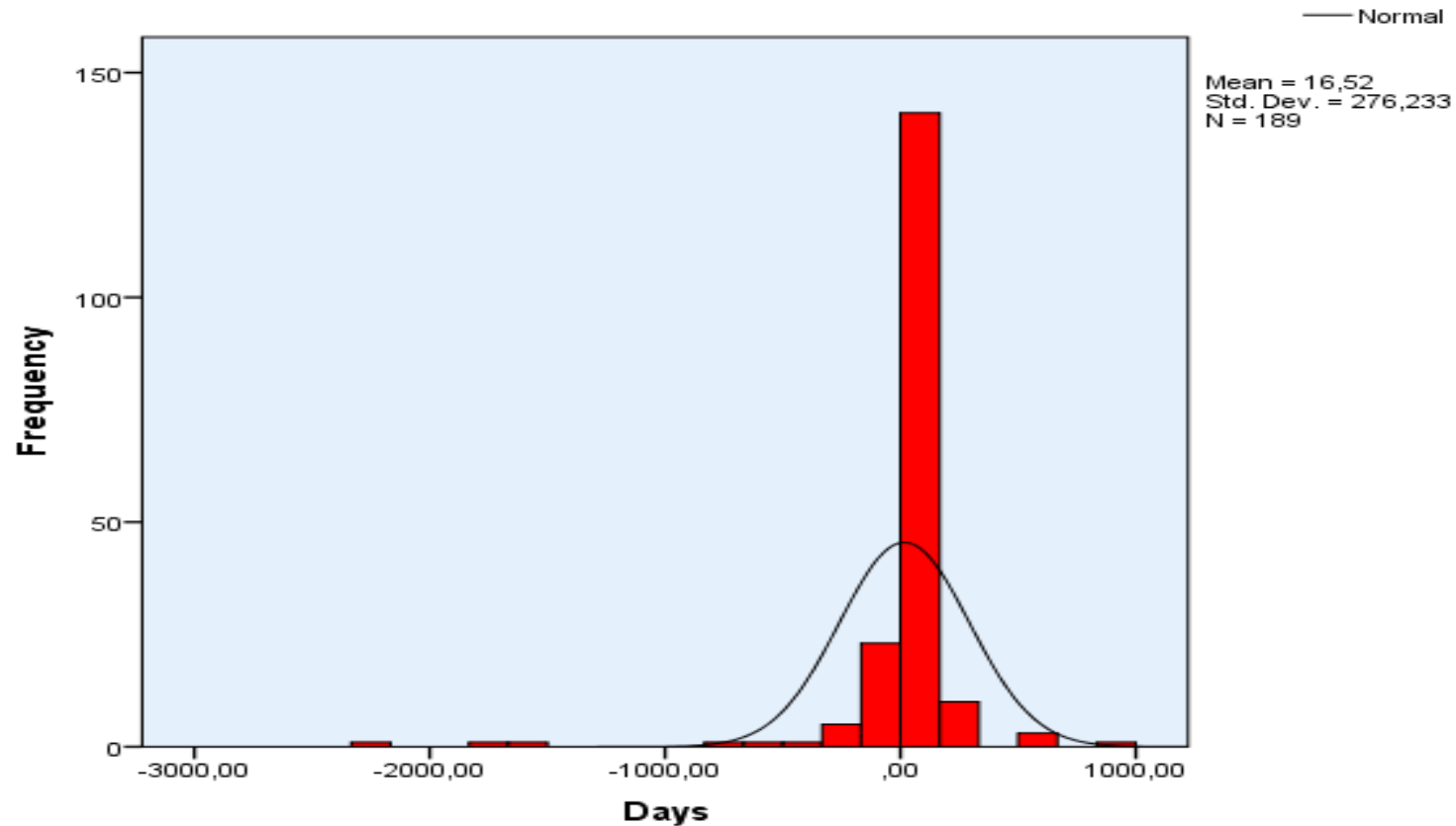


— Normal

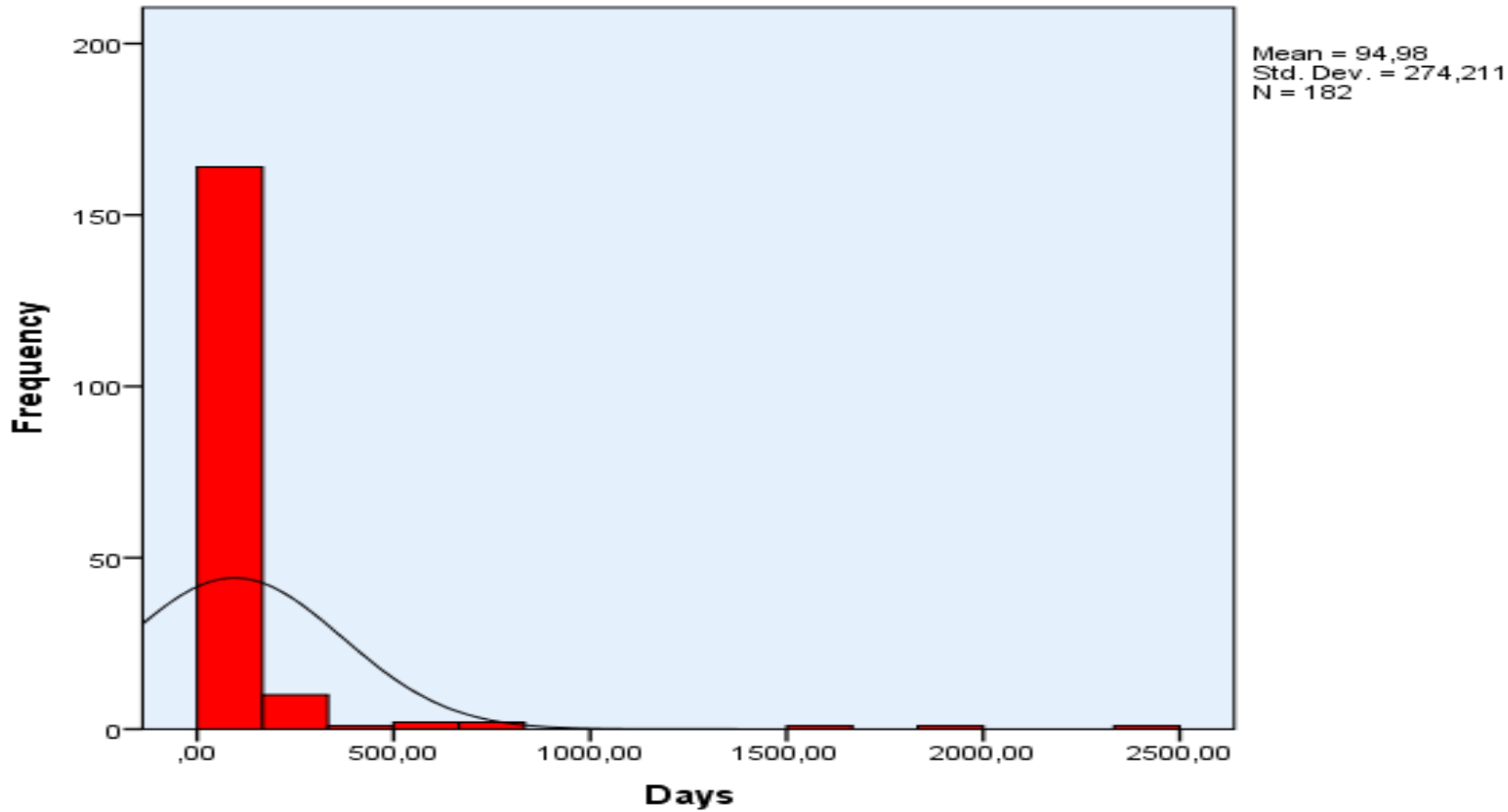
Mean = 1035,40  
Std. Dev. = 850,56  
N = 97



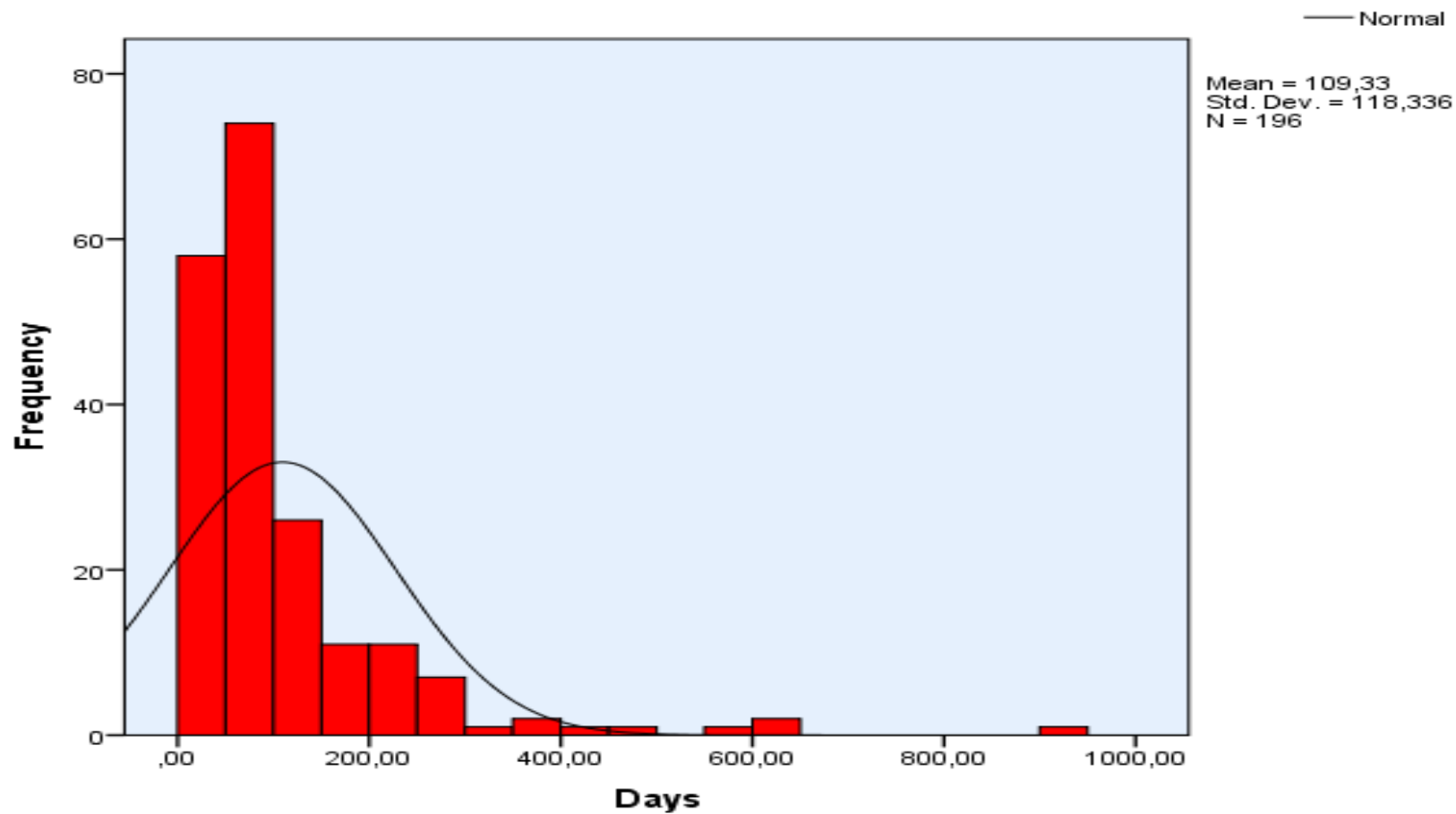
# Time difference between step 4 and theory test



# Time difference between step 4 and practical test

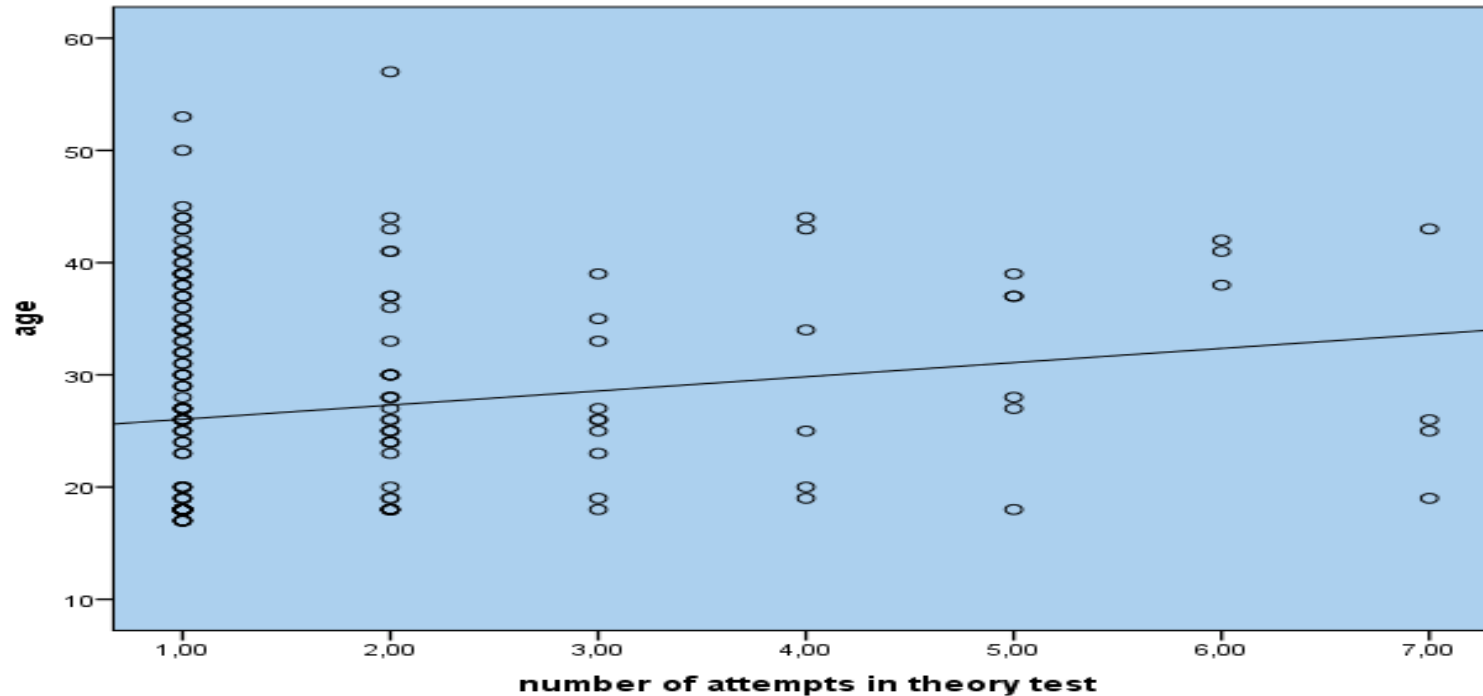


# Time difference between two tests



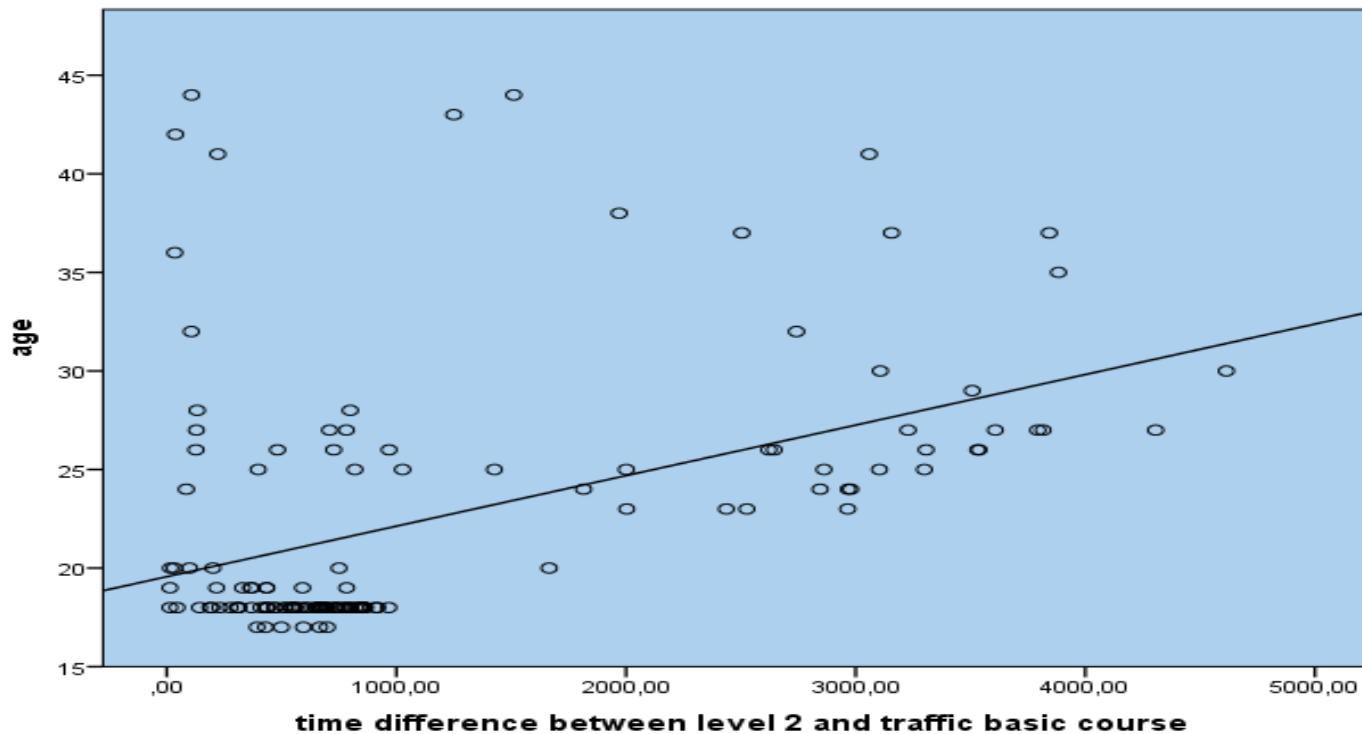
# Relation between age and other variables

There was a significant positive correlation between age and number of attempts in the theory test ( $r=0.18$ ,  $p<0.01$ )



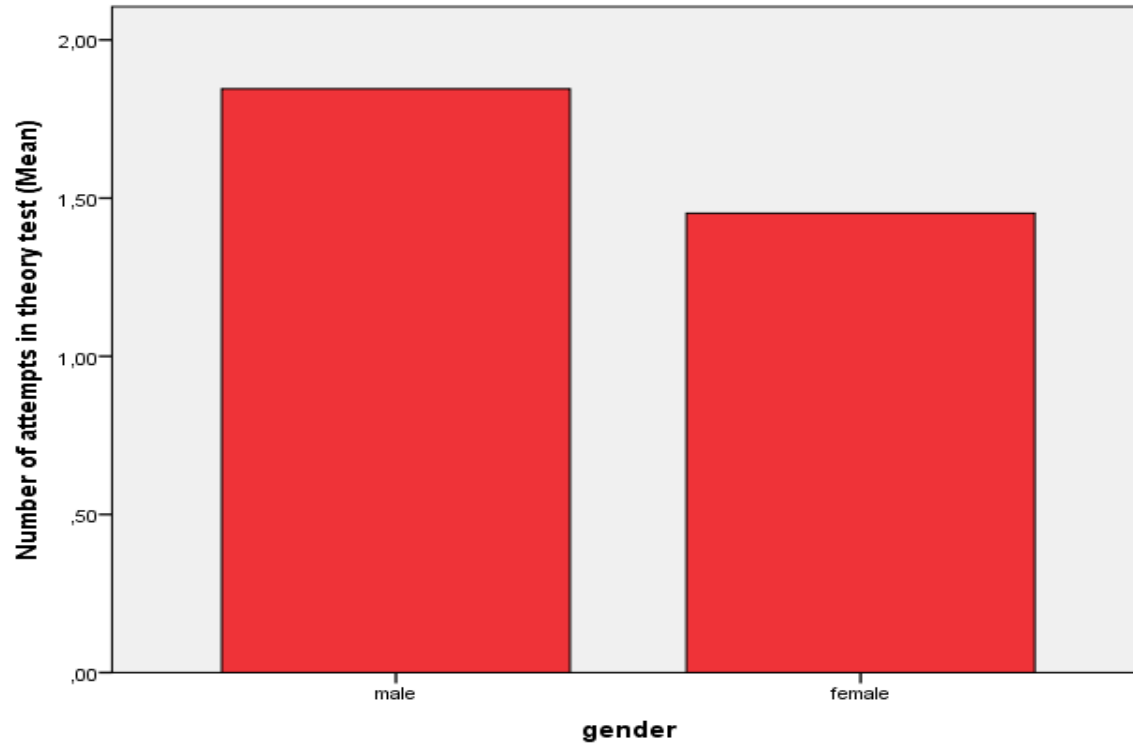
# Relation between age and other variables

There was a significant correlation between age and time difference between step 1 and step 2 ( $r=0.45$ ,  $p<0.01$ )



# Gender differences

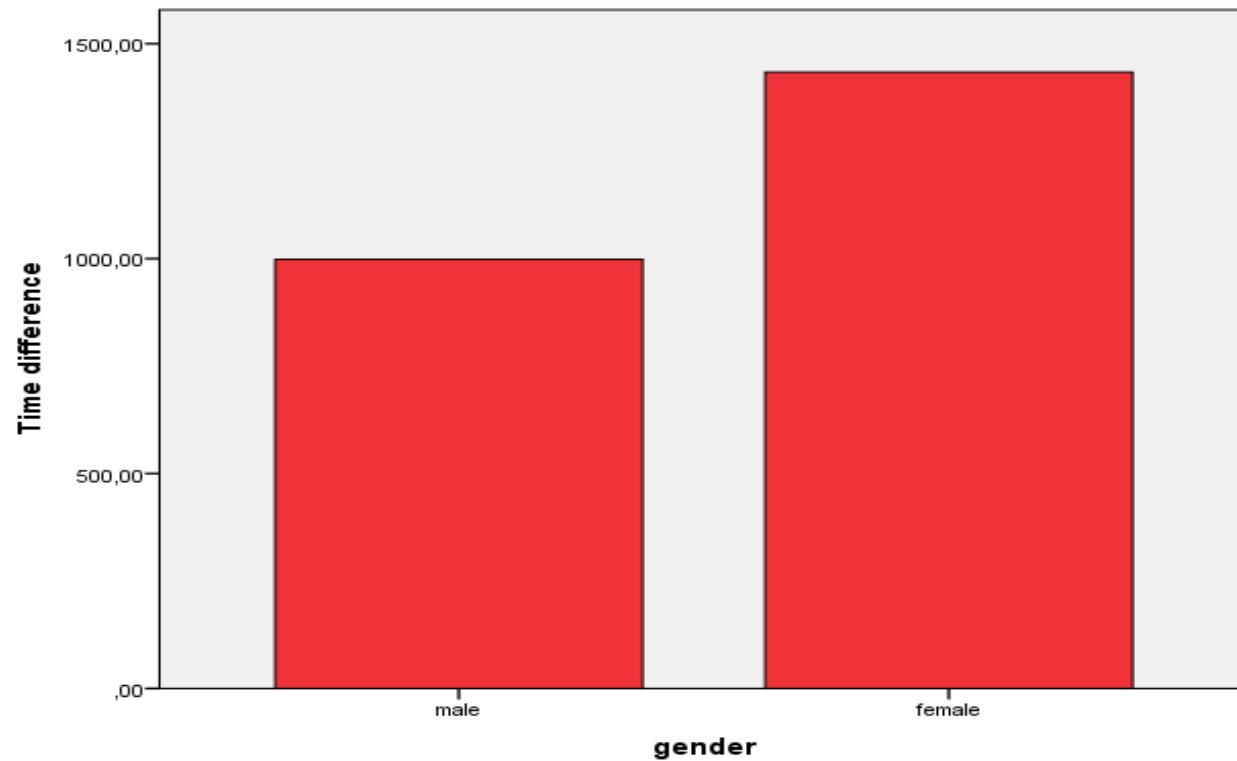
There is a significant gender difference in number of attempts in the theory test [ $t(194)=2.01, p<0.05$ ]





# Gender differences

There is a significant gender difference in time spent between Step 1 and Step 4

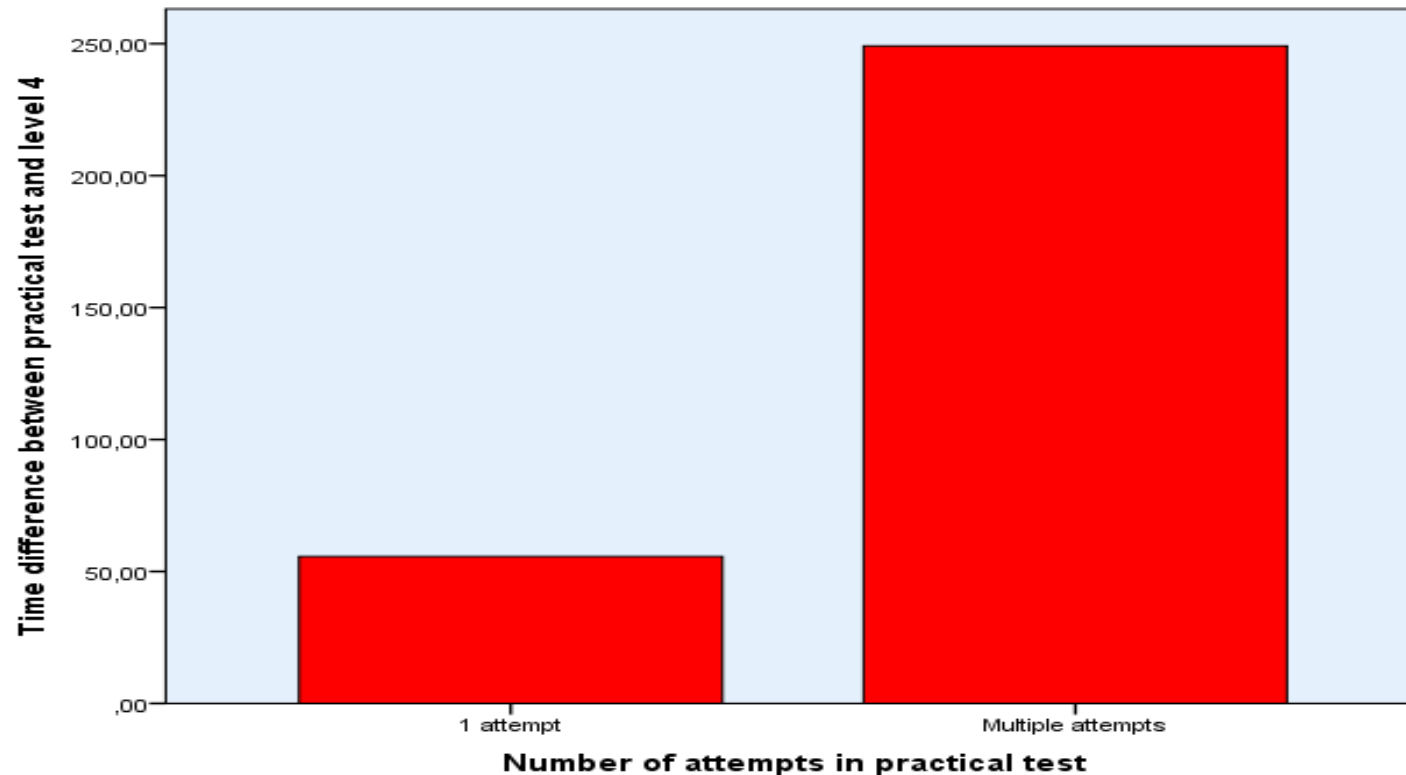


# Relationship between test location and other variables

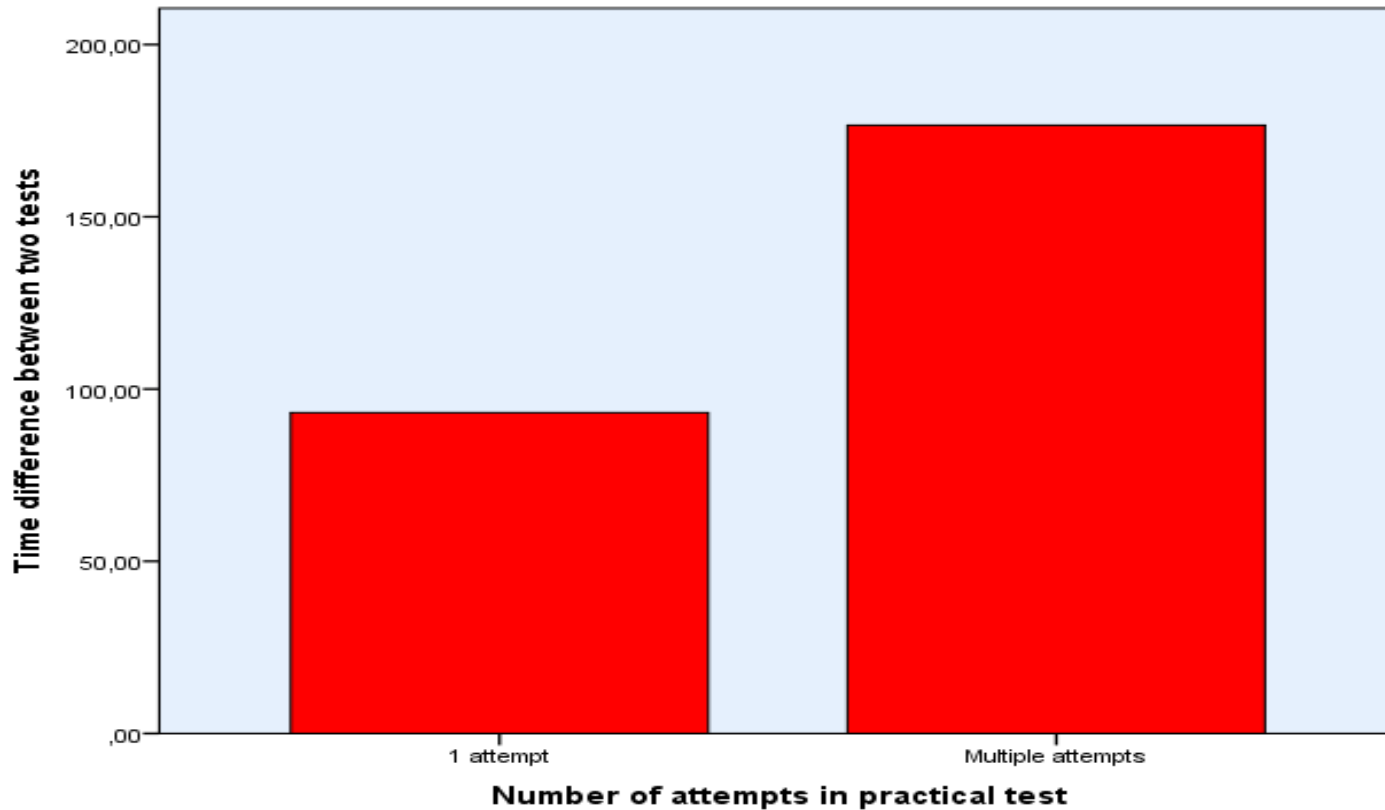
There is no significant relationship between location of test (small, medium-sized and large towns) and other variables!



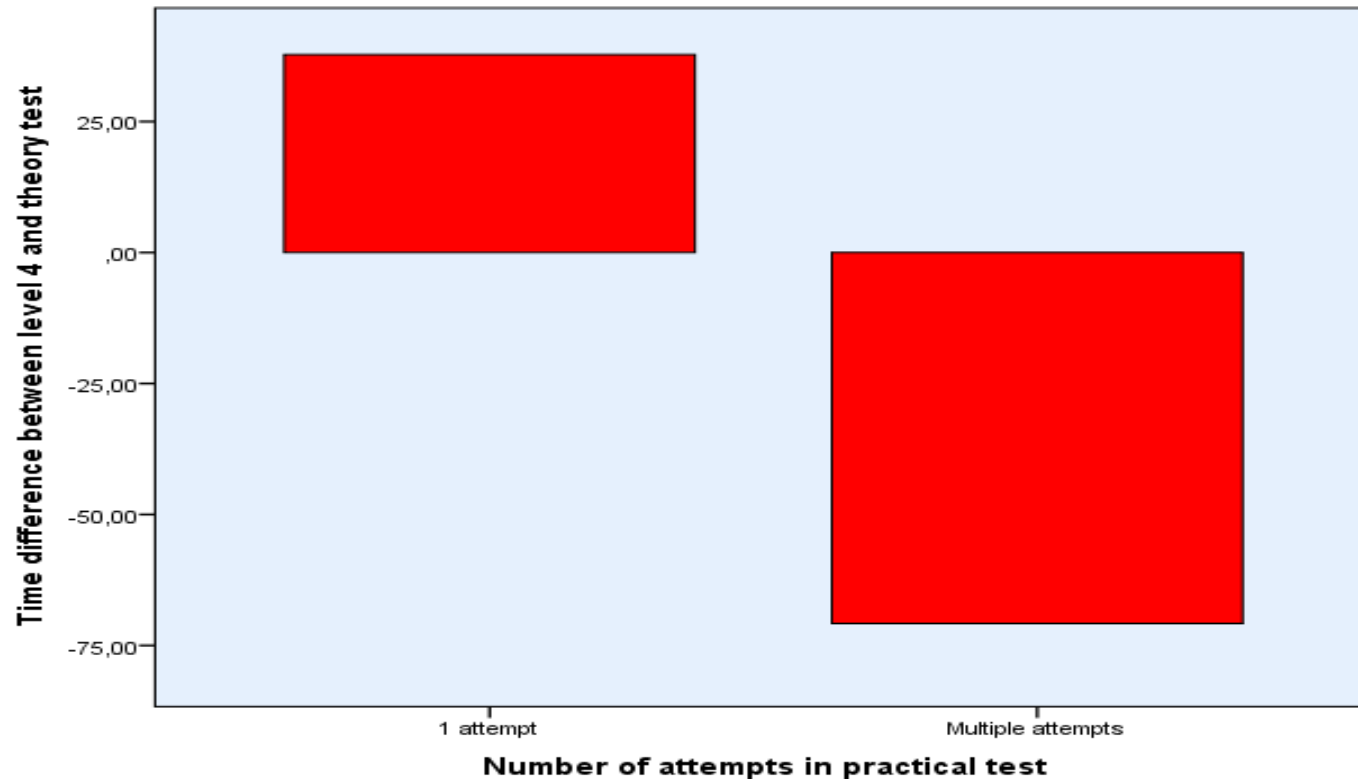
# Comparing the groups with one and multiple attempts in the practical test



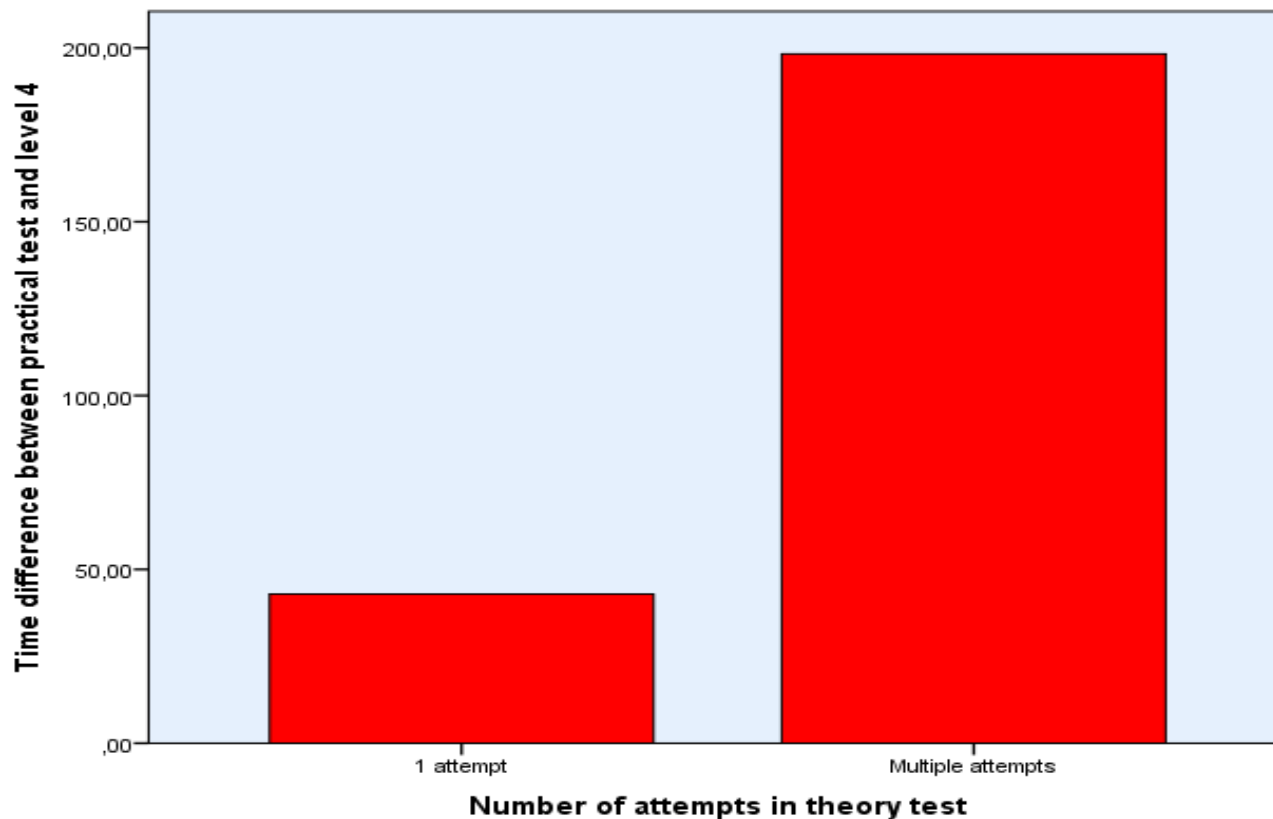
# Comparing the groups with one and multiple attempts in the practical test



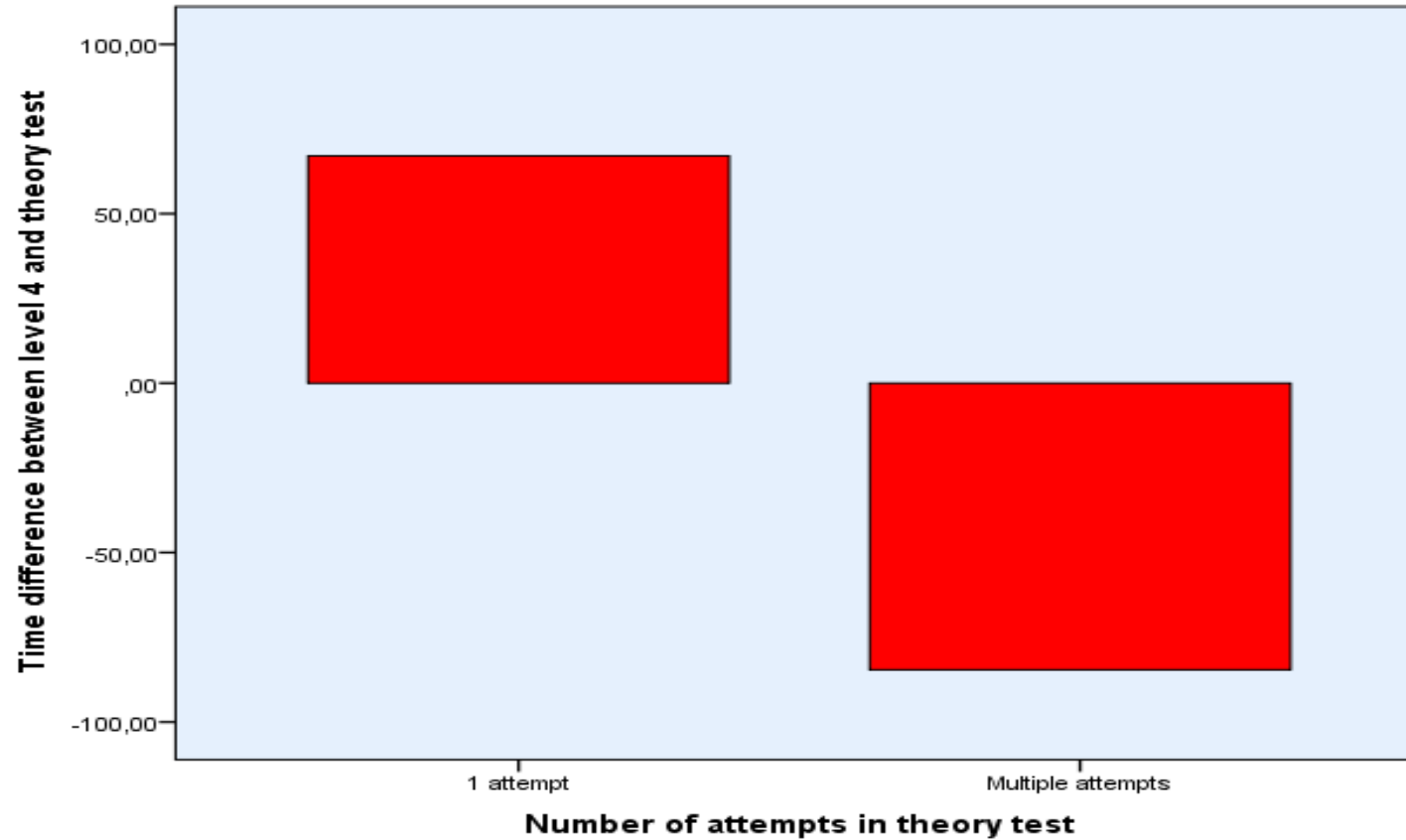
# Comparing the groups with one and multiple attempts in the practical test



# Comparing the groups with one and multiple attempts in the theory test



# Comparing the groups with one and multiple attempts in the theory test



# Conclusions

- Number of attempts in the theory test tends to increase with older age and male gender
- The most training time is spent between step 1 and step 2
- There is no significant relationship between location of the test and any other variables
- Time spent after step 4 is critical for both theoretical and practical test
- Those who take driving education are not necessarily young. 50% of our sample was older than 25 years old!





# Further studies

- What is going on between step 4 and practical the test? Is there any training period and what are the content?
- Layman instruction – to what extent?
- Relationship between driving education & driving test and accidents
- How are they doing later in life – attitudes, values and traffic safety

