

9th INTERNATIONAL CONGRESS ON TRANSPORTATION RESEARCH



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Self-assessment and Road Behaviour

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Introduction

One of the factors affecting driving behavior, not sufficiently investigated in the scientific field of transport research, is driver selfassessment

Inaccurate self-assessment of driving skills has been associated to unsafe driving behaviour and road accidents (Nakai, and Usui 2012)

Assessing driving behaviour can be achieved through self-report questionnaires, focus groups, interviews and driving diaries





Objective and Methodology

The objective of the present research is to correlate self-assessment and other characteristics of drivers with parameters of their road behavior and questionnaire indicators

➤A simulator experiment was conducted, and a questionnaire was filled in for a sample of 125 drivers

➤The collected data (both from the questionnaires and the simulator) were grouped using the factor analysis method and three linear regression models were developed





Results – Factor Analysis



Results – Linear Regression models

Dependent variables:

- Mean driving speed
- Average Headway
- Reaction Time

Independent variables:

- Standard deviation of lateral position, Factor 1 (Driving skills), Participant's age, Driving experience
- Mean driving speed, Factor 3 (Safe driving), Age group (35-60)
- Mean driving speed, Factor 4 (Driving impairments), Participant's gender



Conclusions

Results indicate that the more efficient a driver considers themselves, the more they increase their mean driving speed

Regarding reaction time, it is found that drivers' perception of driving impairments is associated with increase of reaction time at an unexpected event

Overall, drivers evaluated realistically their driving skills with an exception when it came to the safety driving measures which were: keeping an adequate headway from the vehicle in front, accurately adjusting their speed on different driving conditions, maintaining speed limits.







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