

“SAFETY for all: The adaptation of concepts from novice driver assessment to other driver populations”

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Abstract

In recent years, an electronic observation tool (“e-test-protocol”) was developed for the evaluation of the driving competence of novice drivers in the practical driving test. The theoretical basis is provided by the catalogue of driving tasks (Sturzbecher et al., 2014; Sturzbecher et al., 2016). Driving competence assessment take place by means of demand standards (“driving tasks” e. g., turning right) and competence standards (“observation categories” e. g., speed adaptation). In the present study the methodological approach for novice drivers should also be applied to older drivers. As a consequence of the demographic change, the number of older drivers will increase in the future, however their fitness to drive is a subject of an ongoing debate. As a way to assess and maintain driving skills, on-road tests with individual feedback through experts are discussed (Brockmann 2017). We, therefore, conducted an on-road test with individual feedback for assessing driving skills of older car drivers with an electronic observation tool (“eIFE”) for this target group. The assessment was done by examiners, who had extensive experience evaluating the driving competence of novice drivers in the driving test. A number of 188 drivers, aged 65 and older, took part in our study. However, we could only use the data of 178 participants for the analysis. On average they were 71,6 years old ($SD = 5,5$) and 74 % of them were male. Before and after the on-road test the drivers responded to a questionnaire, e. g., about their driving experience and their opinion about the on-road test with individual feedback. The actual trip with the examiner took about 45 minutes and afterwards the participants received individual feedback. Results show, that most of the older drivers have been evaluated as safe drivers by the examiners. A more detailed analysis revealed that most of the difficulties were typical for older drivers. In line with previous studies (e.g. Kennter-Mabiala et al., 2016; Kubitzki & Janitzek, 2009; Uhr et al., 2016) the older drivers had many problems at intersections. They showed a lack of traffic observation and did not adapt their speed accordingly when they crossed an intersection. At intersections with traffic lights they did not position their car properly. In addition, a lot of critical situations resulted from a poor traffic observation during the change of the lane. The observation tool eIFE proved to be suitable for the assessment of the driving skills of elderly people. Participants perceived the on-road test with individual feedback as positive. Furthermore they assessed the examiners feedback as helpful. They stated that they became more sensitive for their individual flaws and mistakes. Most of the drivers would do the on-road test with individual feedback again. Even if the driving skills of the participants were mostly at a high level, the on-road test with individual feedback was perceived as valuable measure.

References:

- Brockmann, S. (2017). *Standpunkte der Versicherungswirtschaft - 55. Verkehrsgerichtstag 2017*. Berlin: Unfallforschung der Versicherer e. V.
- Kennter-Mabiala, R., Kaussner, Y., Hoffmann, S., & Volk, M. (2016). Driving performance of elderly drivers in comparison to middle aged drivers during a representative, standardized driving test in real traffic. *Zeitschrift Für Verkehrssicherheit, 3*, 73–76.
- Kubitzki, J., & Janitzek, T. (2009). *Sicherheit und Mobilität älterer Verkehrsteilnehmer*. Ismaning, Brüssel.
- Sturzbecher, D., Luniak, P., & Mörl, S. (2016). *Revision zur optimierten Praktischen Fahrerlaubnisprüfung* (Heft M 268). Bergisch-Gladbach: Bundesanstalt für Straßenwesen.
- Sturzbecher, D., Mörl, S., & Kaltenbaek, J. (2014). *Optimierung der Praktischen Fahrerlaubnisprüfung* (Heft M 243). Bergisch Gladbach: Bundesanstalt für Straßenwesen.
- Uhr, A., Ewert, U., Scaramuzza, G., Cavegn, M., Niemann, S., & Achermann Stürmer, Y. (2016). *Sicherheit älterer Verkehrsteilnehmer* (bfu- Report Nr. 14). Bern: bfu-Beratungsstelle für Unfallverhütung.

Presenter's bio:

Dr. rer. nat. **Lars Rößger**, psychologist, was research fellow at the chair of Traffic and Transportation Psychology; University of Technology Dresden from 2003 – 2015. Since 2016 he leads the traffic safety research unit at the TÜV|DEKRA arge tp 21. The TÜV|DEKRA arge tp 21 is responsible for the development and evaluation of the driving license system in Germany.