



Contribution of Drivers' Education and Training to Safety

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Research Institute
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It's all about us on the road

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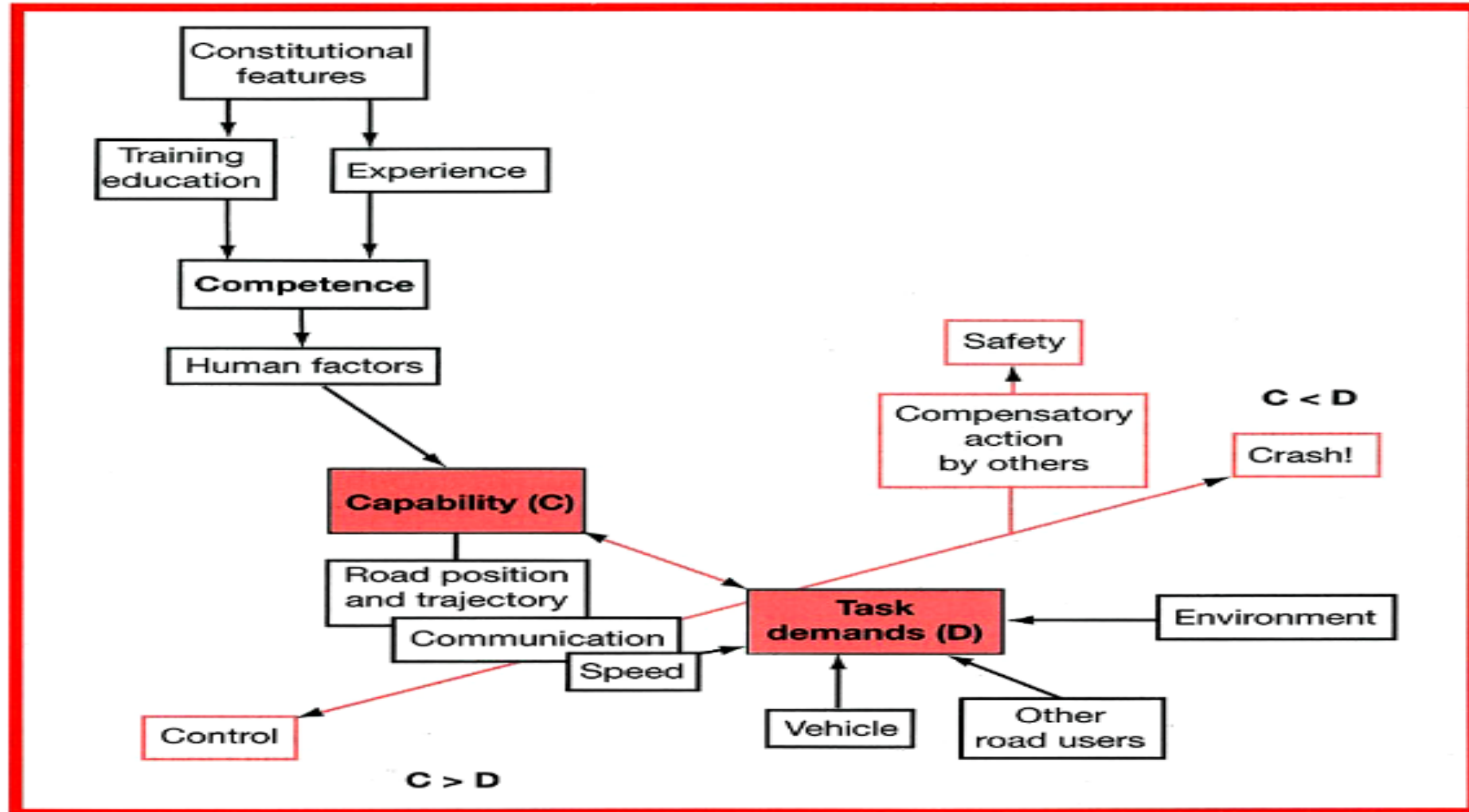
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Fuller. 2005



Task Demands towards Driver's Capability

Fuller (2005):

The weight of task demands towards driver's capability is all the story.

When driver's capability is higher than the task demands we get Control.

But

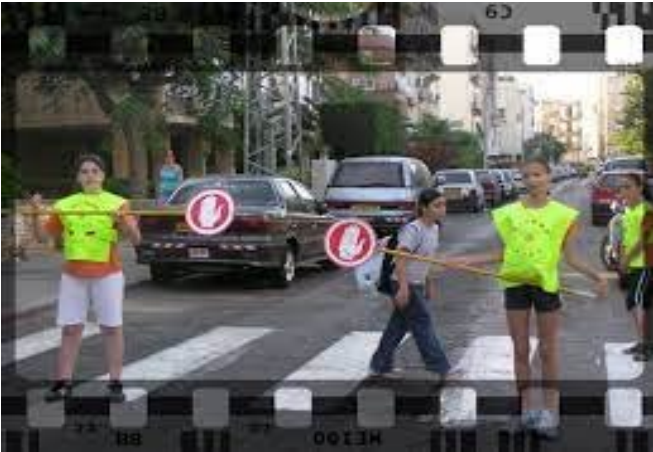
When Task demands are higher than the driver's capability it may end in a **crash**

Many factors play a role in shaping the Driver's Capability.

Education is one of the most important of those from the very early age – from the age of Kindergarten.



The Golden Guards



Participation in the crossing guard program has a positive influence on awareness of safety rules and that this effect is stable over more than a year.

It may imply that the crossing guard program, besides providing immediate benefits in safer road-crossing, carries the added benefit of higher levels of knowledge regarding safety rules, and perhaps the internalization of such rules (Rosenbloom et al., 2008)



At high schools the emphasis is on safe driving – no alcohol or drugs

At the age of starting driving lessons, it is essential to discuss the social pressure of the peer group over the new driver





For the youngsters that start to study driving there is a curriculum of traffic laws and regulations at school.

- Young drivers rate their performance as above average and are more likely to equate “good” driving with the ability to master the controls of the car at higher speeds.
- They are more willing to break speed limits, drive too close to the car in front of them, cut corners, etc. than more experienced drivers (Elander et al., 1993).

- The severity of young drivers' traffic accidents involvement has caused experts in road safety to take action by developing educational and preventative programs in order to reduce young driver risk.
- These programs take into account the factors which motivate people to take risks while driving and to understand what people feel they have to gain through such behavior.

Safety Workshop in a Rehabilitation Center



The social workers' section in a Rehabilitation Center set up a special short-term workshop for adolescents in the hospital for the prevention of road accidents. They hosted workshops for 11th and 12th grade students from vocational and academic high schools.

The rationale of the intervention is to expose the young drivers (or the future drivers) to a meaningful experience that would imprint important messages of safety in their behavior, or at the least, in their attitudes.

Safety Workshop in a Rehabilitation Center

The students meet with a young person who has survived an accident. After hearing this person's story, participants ask questions and hold a discussion. Sometimes, participants also meet a parent of a seriously injured young person and hear about the long recovery process.

Finally, the students take part in a "simulation" in which they learn about living with a disability – for example, by controlling a wheelchair in a hospital or by attempting routine activities with one limb tied to their body.



- In assessing the impact of the workshop throughout the sampled group, Rosenbloom et al realized (2008) that the effect of the workshop on both predicted intention and self-reporting vis-à-vis safe driving was mediated by the type of school the respondents attended.
- Students at vocational high schools who attended the workshop showed markedly safer attitudes towards driving than their classmates who did not attend;

- no such difference was found among students at academic high schools. It would appear that students from schools with relatively low achievement rankings come to the workshop with less outside knowledge regarding road safety.
- After participating in the workshop, their knowledge increases, their intentions change, and they become more willing to implement what they have learned. The outside knowledge and awareness of students from schools with higher achievement rankings do not lead to any change regarding intentions as a result of participation in the workshop



- According to Murray (1998) home and school background of drivers may have a central role in the shaping of attitudes towards safe driving and in involvement in road crashes. School achievement and school attainment were positively correlated with involvement in road crashes.
- School grades in the school-leaving certificate from compulsory school education (at age 16) of all male motor vehicle drivers involved in accidents were below average and men with compulsory education only as well as men with a vocational upper secondary education were over-represented among these drivers.

- The over-representation of lower-educated men and women among drivers involved in car accidents could not be explained by a higher risk exposure (driving distances). Thus, educational achievement and attainment are powerful variables explaining accident risk (Murray, 1998).
- One possible explanation may be that students with low academic achievement might be more effectively influenced by emotional interventions (such as the Loewenstein Workshop) rather than by cognitive interventions (Kolb, 1984).

Graduated driver licensing systems (GDL)

- **This system that is applied in many countries** is designed to provide new drivers with driving experience and skills gradually over time in low-risk environments.
- three steps:
 - Learner permit
 - Restricted, probationary or provisional license
 - Full driver license
- Graduated drivers' licensing generally restricts nighttime, expressway, and unsupervised driving during initial stages

There is evidence that new drivers that accumulate a lot of accompanied driving hours demonstrate much safer driving in the “solo” driving at the end of the GDL period (Toledo et al., 2014).

Assessment and Evaluation Centers

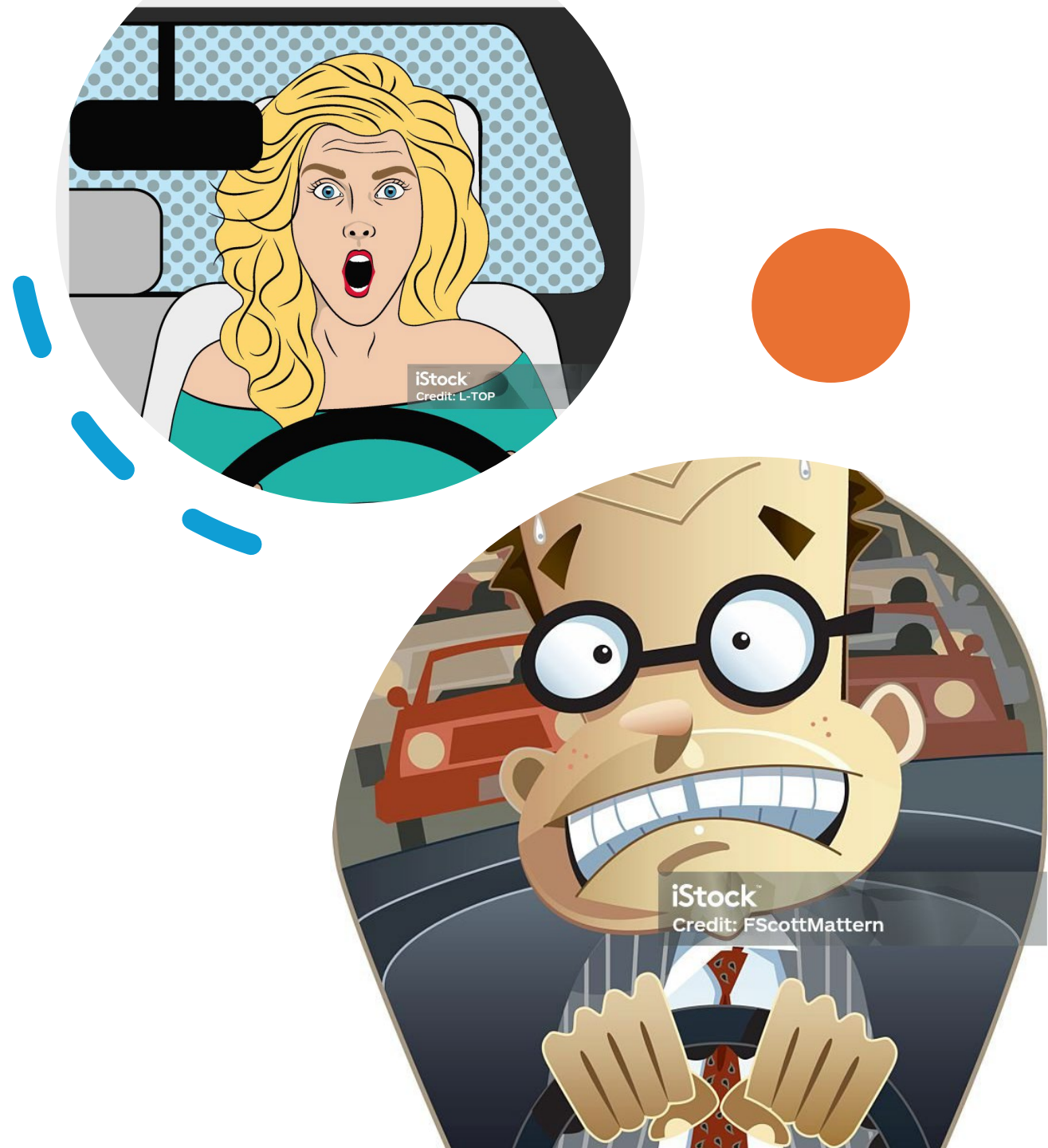
Four groups of drivers have to go through evaluation centers:

- Professional drivers – those who are aimed to drive in buses, trucks and / or taxi
- Drivers after injury or post-stroke patients
- People with mental or cognitive problems
- Recidivists drivers who accumulated many traffic violations

The evaluation process includes mental / cognitive tests, personality and emotional tests and practical driving tests.

Assessment and Evaluation Centers

- These actions are aimed to minimize the aggressive and criminal drivers as well as incompetent drivers on the roads.



Drivers' Training Programs

- As indicated by literature, some forms of pre- and post-licence driver training appear to be beneficial for driving skill development. Some forms of post-licence driver training may also have the potential to improve novice drivers' safety, but not yet been properly evaluated.
- Some evidence suggests that most of unsafe driving behaviour by young novice drivers do not result from deliberate risk-taking, but rather from overconfidence, ignorance and poor hazard perception. Road safety professionals should focus on safe driving behaviours (Beanland et al., 2017).
- Rosenbloom et al (2008) showed that perceived risk increases after training. Moreover, they showed that the increment in perceived risk was still present two months after the training, and that it did not decrease significantly as compared to immediately after the training.

Stanton et al., (2007)

- There are several types of post-licensure programmes in order to explore a system based on a model of identifying and responding to hazards, called 'information, position, speed, gear and acceleration' (IPSGA).
- Previous literature has been sceptical about the benefits of advanced driver education; thus, the current study was designed to control for the effects of coaching drivers in the 'IPSGA' system (the treatment group) against the effects of being accompanied (control group 1), as well as the mere effects of time (control group 2).
- The results suggest that advanced driver coaching using the IPSGA system had a beneficial effect on all of these measures. Drivers in the coaching condition improved their situation awareness, driving skills and reduced attributions of external locus of control. The study lends support to the case for one-to-one individualized driver coaching using a systematic model of driving.

To sum up we can say ...

- Kindergarten as well as elementary school and high school have a role in shaping the Capability of the future driver
- Also, many educational programs are applied in order to improve and increase the Capability of the driver
- The authorities try to minimize the criminal and violator drivers on roads by evaluation centers

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Thank you!