



The effectiveness of advanced driver training

Do novice driver training programmes mean fewer crashes? Researchers found that results are mixed, that getting licensed early can counteract the safety benefits of training programmes, and that more nuanced studies are needed.

Young drivers aged 16–24 are over-represented in serious and fatal crashes in New Zealand. Although drivers aged under 25 represent only 9% of current licence holders, in 2019 they were the primary at-fault driver in 26% of fatal crashes, 28% of serious injury crashes and 30% of minor injury crashes (Ministry of Transport 2021). The reasons underlying this over-representation are complex, with both inexperience and youth contributing to high crash rates (McCartt et al 2009).

Advanced driver training courses teach skills that can improve vehicle handling and hazard perception to reduce crash rates. In New Zealand, graduates of approved courses may apply for their full licence 3 to 12 months earlier than other drivers.

A 2019 evaluation of this system found that crash rates were not significantly different between trained and untrained drivers. However, crash rates were significantly

lower for trained drivers who had not accepted the time discount. It seems that getting one's licence early counteracts the safety benefits of the training.

Conducted between November 2020 and March 2021, the research summarised here investigated international approaches to advanced driver training and their effects on drivers' skills, safety, behaviour and attitudes. Researchers from the University of Otago systematically reviewed international driver training literature, searching three scholarly databases for the keywords 'driver training' and 'driver education'.

Training included in the licensing process

Compulsory training as part of the licensing process has been evaluated in Denmark, Canada and Finland.

- **Denmark:** A structured training programme was introduced that emphasised hazard perception. A significant reduction in multi-vehicle and manoeuvring crashes followed.
- **Canada:** After driver training was made compulsory in Quebec, there was a significant increase in crashes among young females because the new policy encouraged earlier licensing.
- **Finland:** Following the introduction of compulsory skid training, no significant change was found in slippery crash rates.

Time discount policies have been evaluated in Canada and New Zealand. These mostly showed increased crashes and violations, although some showed no significant impact. No studies found a positive safety impact from time discounts. A Netherlands study also found that condensing training into an intensive two-week period, instead of distributing it over several months, was also associated with significantly more incidents after licensure.

On-road training emphasises vehicle handling skills, yet even when these skills are improved it does not necessarily translate into reduced crash rates.

In the state of Nebraska, completing a driver training course removes the requirement to log 50 hours of supervised driving, and in Oregon, completing an approved training course reduces the supervised practice requirement from 100 to 50 hours. In both states, trained drivers had significantly fewer crashes and violations. These courses do not reduce licence duration, and although the training courses presumably replace 50 hours of supervised practice, drivers may have done additional practice outside the context of the training course.

Simulator training

Simulator training can safely and efficiently expose learner drivers to a diverse range of situations, including situations that could result in a crash. Scenarios can progressively increase in difficulty and can be tailored to the individual so that they receive more training in their weaker areas.

Simulator training is effective at developing procedural skills in learner drivers and can improve later on-road safety. However, not all studies found a significant difference between trained and untrained drivers.

Most simulator training studies have small and unrepresentative samples, so their results should be interpreted cautiously.

Hazard perception training

Most hazard perception programmes involve watching videos or doing simulated exercises and take less than 1 hour.

Overall, hazard perception training improved drivers' scores on hazard perception tests and 'glance' behaviour. However, few studies assessed if this translates to reduced crash rates during real driving. More research is needed using larger samples.

Other training

Some training addressed the psychosocial aspects of driving, and showed positive effects, such as:

- resilience (eg resisting peer pressure to drink drive)
- peer relationships (eg fostering safer communication between young drivers and peer passengers)
- cognitive factors that influence speeding.

Most showed positive effects; however, the research on these programmes is limited, and the findings are still preliminary.

Conclusions and recommendations

Most research evaluations on driver training programmes have significant limitations and problems, so it is difficult to assess their effectiveness.

However, several suggest that time discounts do more harm than good (eg by increasing violation rates and/or crash risk). Therefore, the researchers recommend that time discounts for licensure be removed. The consequences on safety and social issues (such as access to employment) should then be monitored.

In addition, driver training programmes should:

- have a clear, specific issue or skill set that they address
- be experiential rather than solely based on observation, instruction or theory
- be designed to highlight drivers' limitations rather than being framed as 'skill improvement'
- involve practice over an extended time period, rather than intensive practice over a short period
- take into account individual differences in personality, driving style and motivations for driving
- be recorded in detail so they can be delivered consistently by different training providers
- be appropriately evaluated, include an appropriate comparison group, and assess the training's effectiveness on both target skills (eg vehicle handling, hazard perception) and on-road safety (eg crashes, violations).

Most importantly, the researchers recommend that training programmes should not enable early licensure.



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