

## **The redevelopment of DriveSmart: a new life for an evidence-based approach to online learner driver training**

Sarah Chapman<sup>a</sup> & Philip Wallace<sup>b</sup>

<sup>a</sup>Transport Accident Commission, <sup>b</sup>Learning Systems Analysis

### **Abstract**

It is well known that novice drivers are consistently overrepresented in road trauma. In order to improve learner drivers' hazard perception, safe response and attentional control skills, the DriveSmart program was originally developed and tested with two main aspects: scenario video-based exercises and attentional control training. While the original learning framework is still considered to be valid, key issues relating to the age of the program prompted a need for substantial redevelopment. Scripting, filming and post production of new video-based scenarios was completed in 2017 with the redeveloped DriveSmart website expected for public launch in June 2018.

### **Background**

Despite clear reductions in the number of young drivers killed on Victorian roads, young novice drivers continue to be overrepresented in road trauma. In Victoria in 2016, 19% of drivers who lost their lives were aged between 18 and 25 years, despite this age group representing only around 10% of Victorian licence holders (TAC, 2018). In order to support learner drivers to become safe solo drivers, research was conducted by MUARC to inform the development of the original DriveSmart training program in the late 1990's.

### **The DriveSmart Program**

The original DriveSmart concept included two main aspects: scenario video-based exercises and attentional control training. Scenario-based exercises develop skills relating to perceiving and responding to hazards both in specific circumstances where novice drivers are known to be at higher risk as well as in novel circumstances that will aid in the generalization of skills to a wide range of situations. Attentional control training uses techniques to improve the ability of novice drivers to allocate attention to the right things at the right time (Hagston, Hughes & Wallace, 2015).

The first iteration of DriveSmart was publically released in 2000 on CD-ROM and later moved to an online delivery in 2014. Simulator-based evaluation of the original DriveSmart found it to be effective in training the target skills (Regan, Triggs & Godley, 2000). Although the underpinning research and learning outcomes of the product are still consistent with more recent findings (Hagston et.al., 2015), the age of the program itself was negatively impacting on program delivery particularly in regards to;

- Limited screen size of the original design did not map well to modern wide-screen formats
- Program was not compatible with mobile devices
- Original video capture was poor in comparison to modern video format standards and expectations
- Accessibility and program engagement limitations, particularly in regards to the attentional control module
- Lack of integration and alignment with new learner driver programs and Safe System.

## Redevelopment

Given the large number of users accessing the DriveSmart program, over 70,000 at the time of redevelopment, and the lack of a comparable product in market, the decision was made to redevelop the DriveSmart program. The redeveloped DriveSmart program will remain consistent with the original program's underpinning research, learning framework and approach but will incorporate a number of enhancements. Key changes include:

- A mobile optimised approach suitable for completion on a smart phone or tablet
- Increased focus on user engagement features
- Improved video capture data
- Improved accessibility for users (including CALD users)
- Inclusion of a broader range of road users, including vulnerable road users, and high speed merging
- Adjusted focus of scenarios to reflect changes in common crash types for novice drivers
- Alignment with broader learner driver resources, the Safe System and Towards Zero.

Filming and post production of scenarios was completed in mid-2017 and Beta delivery of all 100 scenario based learning activities and 14 attentional control activities was completed in mid-February 2018. The redeveloped DriveSmart website is expected to launch at the beginning of June 2018.

## References

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