

Beyond the DVSA Test: The Science of Hazard Perception for Professional Drivers

Understanding and applying one of the most evidence-based indicators of driver safety



Research-led solutions for safer driving



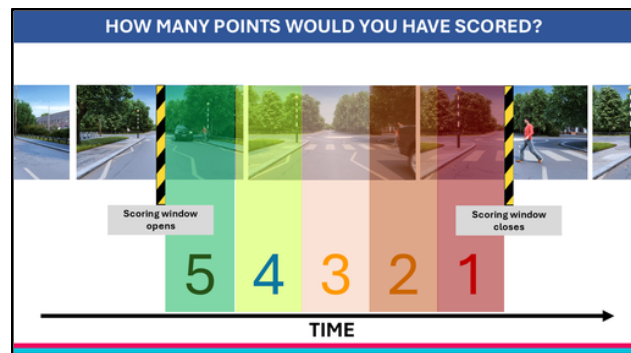
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Understanding modern driver assessment

Introduced to the UK driver-licensing procedure in 2002, the DVSA Hazard Perception Test requires drivers to watch driving clips filmed from the driver's perspective and press a button whenever they detect a hazard.

If they press within a predefined scoring window, they score points — with earlier responses earning higher scores.



Over 50 years of research has demonstrated that hazard-perception skill is related to collision risk (Horswill, 2016) and that safer drivers typically respond faster to hazards than less-safe drivers (e.g. Cheng et al., 2011; Horswill et al., 2010; McKenna and Horswill, 1999; Rosenbloom et al., 2011).

Making this test compulsory has created a thriving market of training apps and programmes to improve learner drivers' awareness.

Limitations of the Current Test

Admittedly, the test is not perfect. It does not measure how drivers might mitigate danger through deceleration or lane positioning, as could be achieved in a simulator. The use of scoring windows is also regarded as problematic by many.

If a highly experienced driver predicts that a hazard is about to occur, they may press the button just before the scoring window opens, resulting in zero points. This is an understandable issue, as the scoring windows were designed primarily for learner drivers and do not account for the advanced skills of experienced professionals.



It does save money though!

- A 2008 Transport Research Laboratory study found that the Hazard Perception Test reduced crash risk among newly qualified drivers.
- More recent estimates suggest it saves the UK nearly £90 million each year, preventing over 1,000 injury collisions and more than 8,000 damage-only collisions.



Other benefits of hazard-perception training...

Smoother, More Efficient Driving

The benefits extend beyond collision reduction. Evidence shows that increased hazard awareness results in **fewer instances of harsh braking and acceleration** (Hill et al., 2019). This results in **smoother driving**, improved fuel efficiency, and **lower emissions**.



Reduced Distraction

Recent studies also indicate that hazard-perception training makes drivers less willing to engage in distracting activities such as mobile-phone use (Krishnan et al., 2019).

After such training, drivers recognise that even apparently benign roads are full of potential hazards and become less inclined to divert attention.



Are hazard tests suitable for fleet drivers?

Despite these successes, hazard-perception assessment and training are rarely used in the professional-driver domain. While prospective lorry and bus drivers must take the test for their initial Driver CPC — with a higher pass threshold than learners — explicit hazard-perception modules are seldom part of ongoing training.

Most professional drivers therefore have not completed a hazard-perception test for many years, if at all.

It is understandable that fleet drivers and managers might doubt its relevance. HGV drivers can see further ahead than car drivers and should identify hazards earlier, while their large blind spots create close-range hazards unseen in the DVSA clips. In contrast, the DVSA test shows a car-driver view without mirrors, and therefore omits key aspects of professional-driver hazard awareness.

Making hazard perception relevant for fleet drivers

To make hazard-perception assessment and training more relevant, the video clips should reflect the point of view of the specific vehicle type (e.g. HGV, van, etc.) and the particular hazards those drivers face.

Esitu Solutions has developed hazard perception and training resources tailored for professional drivers across a range of vehicle types, including cars, vans, buses, HGVs, motorcycles, tractors, and emergency service vehicles (Crundall & Kroll, 2018; Kroll & Crundall, 2019; Kroll et al., 2020).

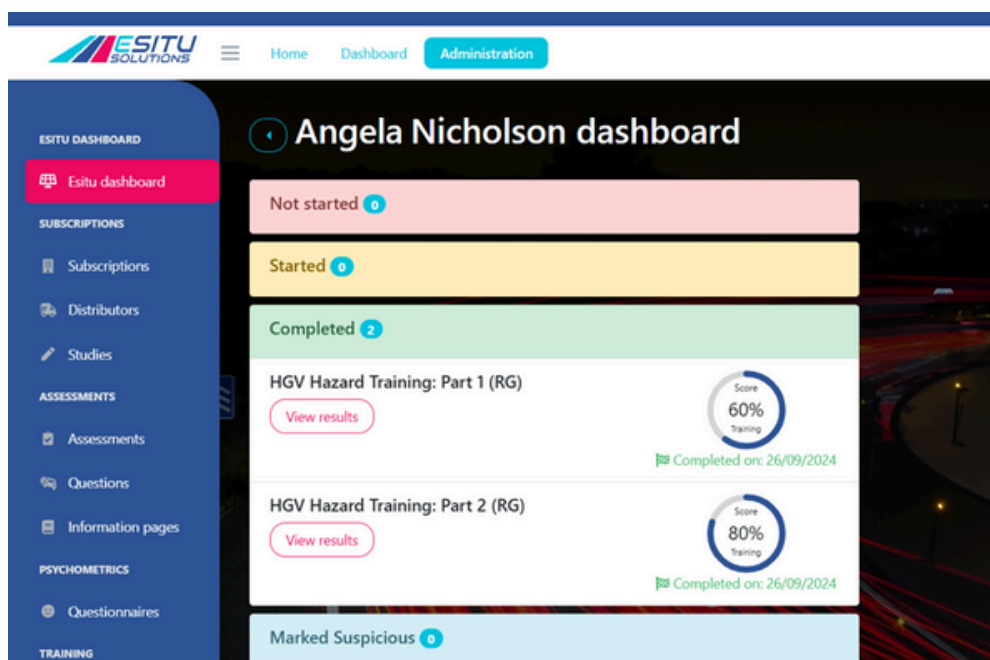
A new scoring process removes the need for controversial scoring windows, producing a more transparent assessment that drivers trust. Following a rigorous development period, Esitu Solutions has made these tests available for fleets to use.



Benefits for fleets

A suite of hazard-perception and risk-taking tests offers fleet operators an efficient way to identify driver competence, saving both time and money.

The assessments are delivered online through EsituDrive, allowing remote or depot-based completion. Each driver receives an online dashboard showing progress and a risk rating (high, medium, low) for each competency.



Managers use these indices to locate risk within the fleet and target training accordingly. Interactive dashboards update in real time, enabling both fleet-wide and individual performance monitoring.

This online approach combines the scalability of driver profilers with the realism of behavioural testing.

It places drivers in consistently hazardous scenarios without physical risk and ensures that targeted training can follow for those below benchmark.

While online assessment should not entirely replace on-road elements, it is an ideal way to identify and mitigate risk across large driver populations and to make practical training more efficient.

Beyond hazard perception

In addition to hazard-perception testing, Esitu Solutions has developed other research-backed assessments that target further competencies — from risk-taking propensity to decision-making under time pressure.



These provide an alternative to self-report questions prone to socially desirable answers. For example, rather than asking whether drivers go through amber lights, a video scenario shows the lights turning amber and requires a real-time decision.

Some clips clearly require stopping, while other clips show late ambers that clearly require the driver to continue. Of most interest however are the more ambiguous clips which can reveal a driver's genuine risk-taking intent.



- Hazard-perception testing remains one of the most evidence-based predictors of collision risk.
- By adapting this research-led approach to professional contexts, fleets can better identify competence, reduce collisions, and strengthen their safety culture.

This is the final guide in our six-part Fleet Safety Competence Series

Next Step: Apply what you've learned.

Download the free [Fleet Safety Readiness Checklist](#) to assess your fleet's readiness and drive safer performance.