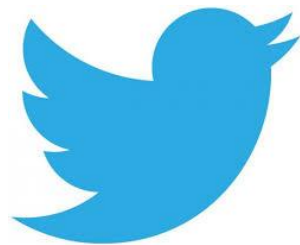


Driver Risk Management

Dr Lisa Dorn
Cranfield University

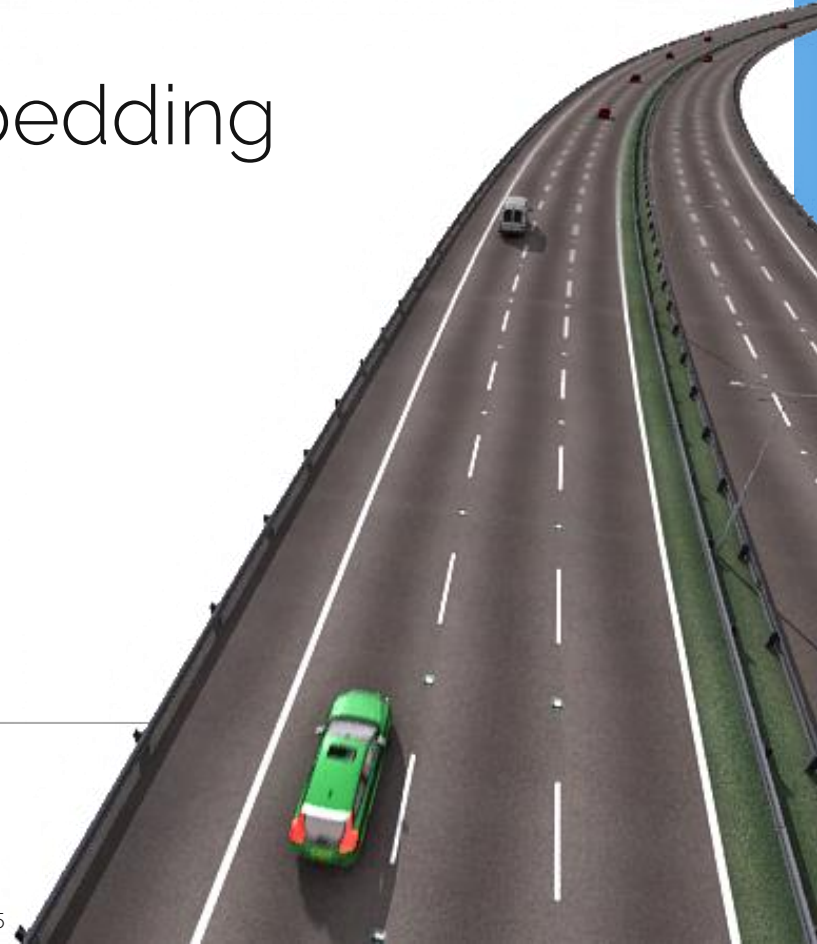
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@Lisadorn

Introduction

- Human Factors in Road Safety
- Identifying underlying behaviours
- Changing habits and embedding improvements



Human Factors in Road Safety

- Employees driving for work more likely to crash than other employees (9.5 fatalities per 100 million person hours vs 3.0 for other occupations; Elvik, 2005)
- Road traffic crashes account for 20% - 40% of work-related incidents (ETSC, 2010a; Fort et al., 2010).
- Increases to 60% If commuting is included (ETSC, 2010a)
- Over 5,000 KSI involved someone driving for work in 2014 (DfT, 2015)
- Time pressure is a major factor (Nævestad et al, 2015; Fort et al, 2014)

Human Factors: Responses to time Pressure

- Time pressure prevalent in companies
- Behavioural indicators (Nævestad et al, 2015; Fort et al, 2014)
 - Speed
 - Failure to gather essential traffic information
 - Making poor decisions in traffic;
 - Operating the vehicle unskilfully;
 - Positioning the vehicle wrongly in the road
- Companies typically focus on the **OUTCOME** of time pressure rather than the **CAUSE**
- To improve fleet risk companies need to:-
 1. Reduce time pressure
 2. Manage the effects of time pressure on driver behaviour



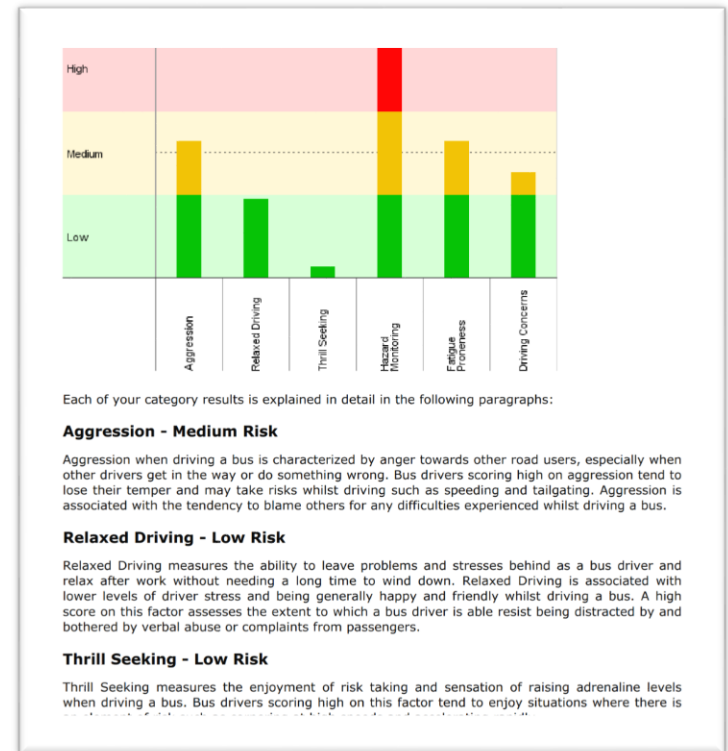
Identifying Behaviours

- Driver Risk Index™ used in many studies of work related driving:-
 - DRI linked to poor driving outcomes and crashes for commercial drivers (Carty et al, 1999; Hartley and El Hassani, 1994)
 - DRI associations with mood, fatigue and cognition amongst truck drivers (Desmond et al, 2001)
 - Bus DRI; workload predicts coping response and risky driving (Hoare, 2001; Machin and Hoare, 2008; Garwood and Dorn, 2003; Dorn and Garwood 2005; Dorn et al, 2010)
 - DRI association with driver stress, risk taking, fatigue, violations and company driver crashes (Kontogiannis, 2006; Öz et al, 2010; Rowden et al, 2011)

Completing the Driver Risk Index™ ...

Not a Test...

- Assesses a range of risk factors
- Approx. 20 mins to complete
- Provides unique driver report
- Accurate indicator of crash involvement
- Basis for post-assessment interventions



DriverMetrics Approach...

Identify

Driver Risk Index™

Choose the most appropriate Driver Risk Index™ assessment.



Set:
Language
Country/Benchmark



Standard



Fleet



Truck



Bus



Tram



Police



Ambulance



Fire

Review

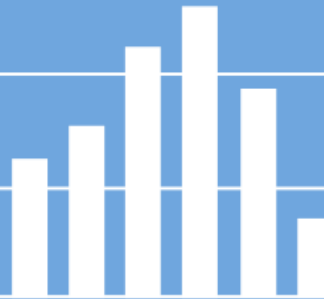
Management Information System

Evaluate your driver reports at the press of a button. The Management Information System analyses your entire fleet data, and can be customized to your business needs.

High

Medium

Low



Act

Intervention Options

Select the most appropriate intervention to address the specific driver behaviour. Identified in Driver Risk Index™ reports.



e-learning



In-vehicle coaching



Workshops



Online training

Management Information System

- Detailed MI accessible 24/7
- Business, cost centre & driver reporting
- Detailed activity reporting
 - Risk Analysis
 - Business unit / individual profiling
 - Completion / Compliance
 - Driver Status
- Grey Fleet data
- Email and data export facility
- Audit trail



Changing Habits



Train the Trainer

Delivered in-company or at Cranfield University, our training courses provide driver trainers and managers with the advanced skills and knowledge required to implement driver coaching based on Driver Risk Index™ profiles to influence driver behaviour.



Driver Coaching

In-vehicle and workshop-based driver training tailored to the Driver Risk Index™ profile reports by DriverMetrics®. Designed to influence at risk driver behaviours.

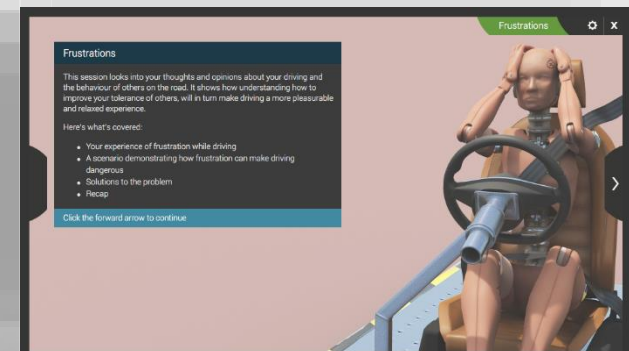
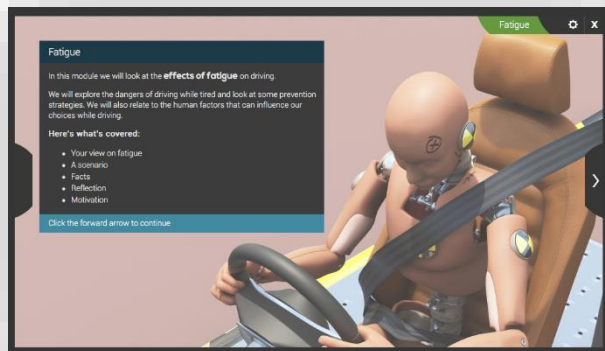


Bespoke Workshops

Behavioural Workshops are tailored specifically for the needs of your fleet drivers. They're held on-site, at your offices, and are the only behavioural workshops personalised to Driver Risk Index™ profile reports.

Embedding Improvements

- Tailored online training course automatically delivered
- Mitigates identified risks alongside other behavioural interventions
- Drip feed approach



Telematics



Phil

Jen

Frank



HARSH
BRAKING

HARSH
BRAKING

HARSH
BRAKING



WHAT?
Symptoms



WHY?
Diagnosis

DriverMetrics



H.P.
module

Aggression
e-learning

Fatigue
e-learning

Phil

Jen

Frank

WHAT NOW?
Automated treatment

Case Study



\$75,000

Invested in DriverMetrics Programme

700 DRI assessments and certification workshops

52%

Reduction in Collisions

Marked reduction in collisions on average across all groups

22x

Return On Investment

Up to \$1.7m saved in collisions avoided

“ Why the huge improvement in student driver collisions? We began assessing driver applicants with the DriverMetrics Risk Index.

In Summary

- The Driver Risk Index™ assesses vulnerability to time pressure
- The Driver Risk Index™ profiles many other behavioural indicators of driver risk
- Taking a behavioural safety approach shown to improve work related road safety across many case studies

