

## Victoria's new Drive Test: From the drawing board to operational test

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### Abstract

As part of a revised Graduated Licensing Scheme (GLS), a new drive test for car driver licence applicants has been developed and introduced in Victoria. The central purpose of this undertaking was to create a test that discriminates those young drivers who have completed the new mandatory minimum of 120 hours of supervised driving practice from those who have not.

This paper outlines the key activities which underpinned the successful introduction of the test across Victoria on 1 July 2008. It provides an overview of the major steps and processes necessary to take the new test from trial to operational test. This includes the communication and training programs required to make the new test a reality.

### Keywords

Licence test, driving test, test development

### Introduction

On Tuesday 1 July 2008 a new drive test for car driver licence applicants was introduced across Victoria. This represented the culmination of almost two years work in developing and trialling the new drive test and planning for its introduction.

The focus of this paper is an outlining of the steps required to achieve implementation of the new test. While aspects of the development, content and operation of the new drive test will be touched upon, the reader is directed to several companion papers that deal in greater depth with the development, trialling and underlying psychometrics [1, 2, 3]. Summary information on the new drive test is also available at the VicRoads' website, including a video clip which demonstrates key aspects of the new drive test [4].

This paper outlines the activities which underpinned the successful introduction of the test and provides an overview of the major steps and processes necessary to take the new test from trial to operational test. This includes the key supporting, communication and training programs required to make the new test a reality. However, it is not intended to be comprehensive or exhaustive.

### Genesis of the New Test: In the beginning...

As part of improvements to the Victorian graduated licensing system (GLS) announced in 2006, VicRoads flagged a new requirement that, from mid 2008, learner drivers aged under 21 years would be required to have accrued a minimum of 120 hours of supervised driving experience before attempting the probationary (provisional) licence test. This requirement was based on research that showed that learners who received about 120 hours of supervised experience had up to 35% fewer crashes than those who received only 40-50 hours [5]. Later research also showed that, those who practised more as learner drivers had lower crash involvement after initial solo licensing [6, 7]. In the years leading up to the requirement for minimum experience hours, VicRoads, the Transport Accident Commission (TAC), the Royal Automobile Club of Victoria (RACV) and other road safety organisations had encouraged Victorian learner drivers to gain lots of supervised pre-licence driving experience [8].

The introduction of a minimum learner experience hours was not new with many GLS requiring this, though not necessarily at the 120 hour level [9]. However, the next step that VicRoads took was new. This was to consider if the then Victorian driving test, POLA (ie Programmed Observation Licence Assessment) was suitable to assess probationary licence applicants with at least 120 hours of supervised

driving experience. Most other jurisdictions adopting minimum mandatory experience hours did not review or change their respective driving tests.

POLA was introduced in the early 1990s to assess car licence candidates presenting with perhaps no more than 20 hours of driving experience. Given that, from 1 July 2008, the Victorian drive test would need to discriminate drivers who had completed the new mandatory minimum of 120 hours of supervised driving practice from those who had not there were concerns that POLA may not have been up to the task. Unpublished survey research among licence testing officers (LTOs) and driving instructors also suggested that the POLA was considered to be somewhat dated and stale.

Consideration of the adequacy of POLA to discriminate on the basis of accumulated driving experience led VicRoads to form an expert panel (in December 2006) comprising internal and external experts in test development, young driver safety/behaviour and driver licence testing to consider several key options:

- Reviewing/amending POLA to allow it to discriminate drivers who had completed the new mandatory minimum of 120 hours of supervised driving practice from those who had not.
- Adapting a sound existing driving test for the purpose.
- Developing an entirely new test that was sensitive to accumulated driving experience.

### **Review of POLA and Existing Driving Tests**

To cut a long story short, POLA and several psychometrically sound existing driving tests (the Californian DPE (Driver Performance Examination) and New Zealand Full Licence test (FLT) were shown through trialling with Victorian learner drivers in early/mid 2007 not to discriminate on the basis of accumulated driving experience – see Harrison [1] for further information. This meant that amendment of POLA or adaptation of a sound existing test were eliminated leaving only the option of developing an entirely new test that was sensitive to accumulated driving experience.

### **Back to the Drawing Board – Developing a new Driving Test**

The expert panel advising VicRoads on the new test was thrown the challenge of developing an entirely new test to replace POLA and which would:

- Be well calibrated against the skill level of learner drivers with the required 120 hours of on-road supervised experience.
- Attempt to discriminate between learners with and without high levels of driving experience. This would provide additional motivation for learners to accrue high levels of driving experience.

The new test was also expected to be valid, reliable and suitable for equitable use across the Victorian population of licence applicants. VicRoads also indicated that the new test should be deliverable across Victoria and fit within an overall booking slot of no more than one hour. This was a tall order as developing a driving test that was sensitive to hours of accumulated learner driving experience had not, to the collective knowledge of the panel, been previously undertaken.

### **Test Development Process**

The test development panel, which became the new test development project team, went back to first principles and reviewed models of driving skills development/assessment and key constructs underlying novice driver performance (see Macdonald & Harrison [2]). This was prudent and in line with sound psychometric principles.

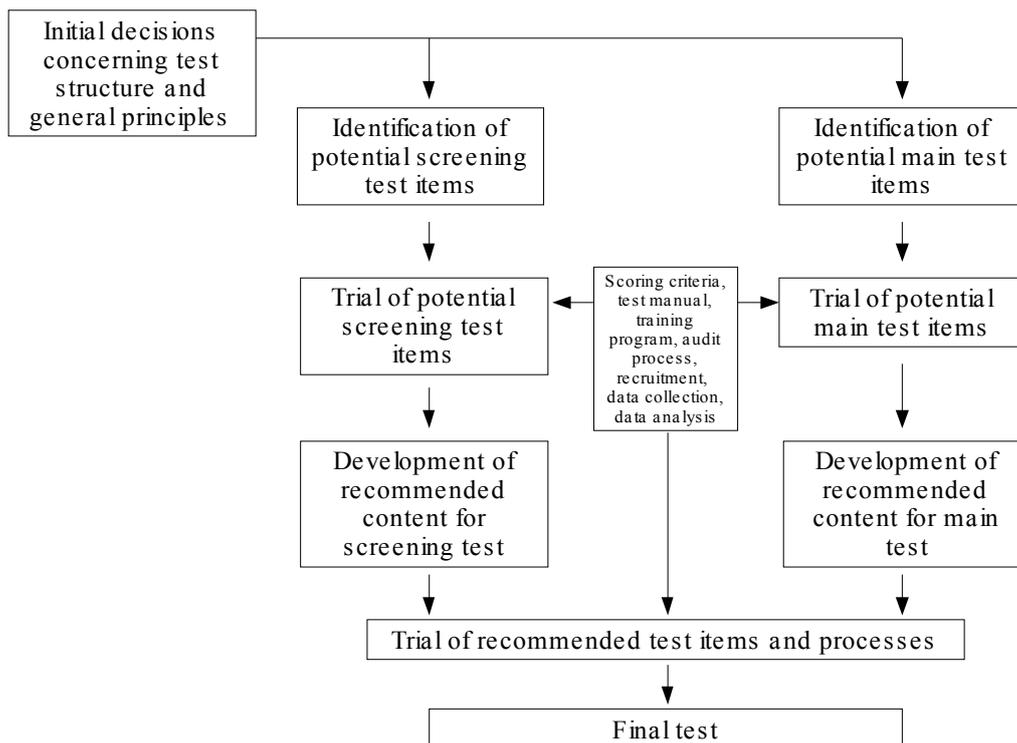
This process allowed for the development of a pool of potential test items for trialling with samples of Victorian learner drivers. This pool consisted of entirely new content and potentially useful items from existing tests (including POLA).

However, consideration of the shape and form of the new test led the new test project team to make some key initial decisions, ie, it

- Should take the form of a series of driving tasks conducted over a test route that started and ended at the VicRoads Customer Service Centre (CSC: ie testing office). The assessed driving tasks would be assessed using specific items with clearly-defined criteria. The assessment items would be aspects of the driving tasks that were observable and related to safe driving.
- Include two stages a screening stage to exclude drivers from the second stage of the test if they are not able to drive safely in less-challenging driving contexts, and a test stage that would include test items calibrated to the expected skill level of experienced learner drivers.

These decisions were intended to promote test reliability and objectivity and to provide some protection for licence testing officers and other road users where test candidates may not be up to the challenge of the new test.

The process of developing and trialling the new test is summarised in Figure 1. Ultimately, a new test with respectable psychometric credentials was developed which successfully discriminated between learners with and without high levels of supervised driving experience. This was a considerable achievement for VicRoads and the test development team. Further information about the process, which extended across three trialling stages in 2007 and early 2008, and the resulting test may also be found in Harrison [1] and Catchpole *et al* [3].



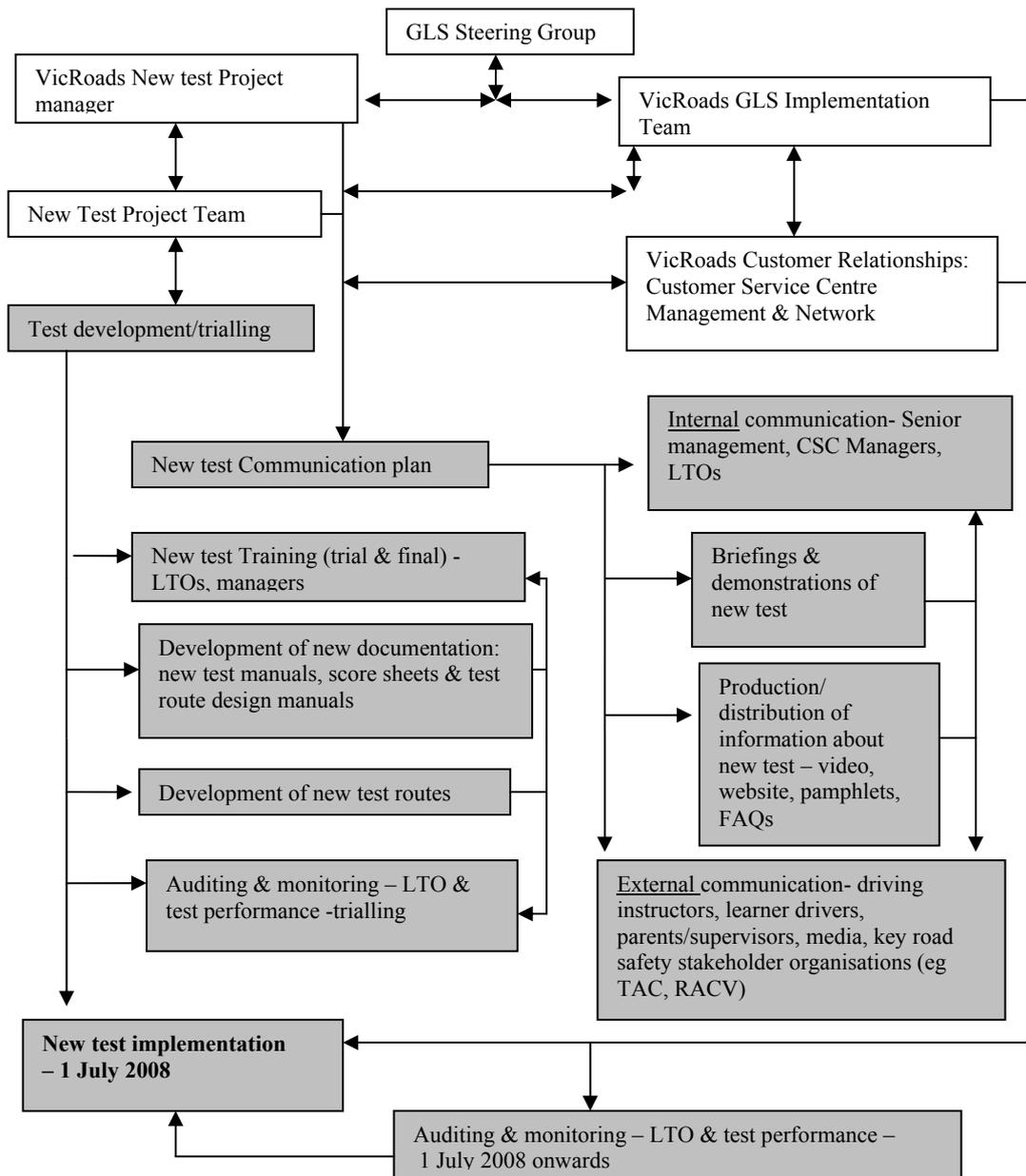
**Figure 1:** Test development process

### Implications for Planning & Logistics

While the development of the new drive test was a substantial undertaking in its own right, the decision to introduce a new test required that a parallel process of planning for the implementation of the test on 1 July 2008 be put in place. In parallel to the new test project team working through the process

summarised in Figure 1 the tasks shown in grey shaded boxes in Figure 2 were planned for and progressively implemented. This required the development of the new test to be integrated into the overall GLS implementation plan and roll-out.

The time available for the development and preparation for implementation was tight and required considerable effort and coordination to achieve. A timetable and schedule was developed and used as a tool to help keep the project on track. This contained key deadlines for key components necessary to achieve the 1 July 2008 implementation date for the new test on a state-wide basis.



**Figure 2:** New Test Planning and Implementation Process

### Communication about the New Test

The communication plan was a key component of the overall implementation process. This involved identifying who, inside and outside VicRoads, needed to be told what about the new test together with

when and how this should be done. For example, several briefings were held for the driving instruction industry at locations across Victoria in 2007 and 2008 to inform them about the new test and the implications for driving instructors. Internal briefings were also held for VicRoads managers to ensure that they were familiar with new test features and requirements and could prepare for implementation in mid 2008. New test demonstrations were also provided for key VicRoads managers and for the GLS implementation team members. This assisted key players in understanding the new test and in explaining its requirements to people inside and outside VicRoads.

Demonstrations of the new test were also provided for key external stakeholders. These included the responsible Minister, driving instructor organisations, and representatives from TAC, Victoria Police and RACV. Demonstrations and briefings were also provided for the media. Overall, these demonstrations and briefings went well.

To assist the communication process a suite of supporting materials was produced. This included:

- A video of a sample new test drive conducted in Bendigo which was made available to all CSCs on DVD - filmed mainly from the perspective of where the LTO would sit in the test vehicle.
- A shorter video version that was made available on the VicRoads website for public information – this was also shown in the waiting areas in VicRoads CSCs across Victoria.
- Pamphlets on the new test aimed at learner drivers and their parents/supervisors.
- Direct mail materials outlining the new test and its requirements sent to all learner permit holders and registered driving instructors.
- Frequently asked questions (and answers) about the new test for internal and external use.

While difficult to manage at times, the communication process informed internal and external stakeholders about the new test and its implications. Overall, this process was essential in establishing an understanding of the new test and reducing resistance to its implementation.

### **New Documentation to Support the New Test**

The new drive test necessitated the development of new test manuals, score sheets and test route design specifications. These were required for operation of the new tests and for use in the training of LTOs and CSC managers in how to conduct the new test and design multiple new test routes around VicRoads' CSCs. While initially drafted by project team members, these documents were edited and refined by professional editors to ensure that they were clear, concise and communicated information readily. Versions of the new test manual were also produced for distribution to driving instructors to assist them in understanding test requirements and adjusting their approach to learner driver training to accommodate test requirements.

### **Training Trial LTOs**

Trialling of potential new test items, components and assessment techniques required a small number of selected VicRoads LTOs to be trained to conduct tests in each of the three trial phases – six in respect of the first two stages and 12 in respect of the third. Training was developed and delivered by project team members. This was sometimes difficult as trial LTOs needed to be trained in new approaches and scoring systems some of which would be ultimately discarded. Trial LTOs therefore needed to learn then forget various assessment skills and scoring techniques. In addition, manuals, score sheets and associated materials needed to be developed for each trial phase with not all of these materials being incorporated into the final version. While tedious, this overall process was necessary if a sound research-based test was to be developed and introduced.

### **Training for the New Test**

Introduction of the new test required that all VicRoads LTOs (about 450 staff) needed to be trained to conduct the new test. As a preliminary to this a team of trainers needed to be trained to in turn train the LTOs. This train-the-trainer training was conducted in-house by VicRoads with the assistance of project

group members and existing Vicroads training staff. Training for both LTOs and trainers made use of adult learning techniques and was largely competency based. DVDs of sample tests and test components were used to assist in training and LTO revision of new test principles and scoring.

To promote retention of skills and extinction of POLA testing approaches most LTO training occurred in June 2008 with LTOs trained in the new test not returning to POLA testing duties. All LTOs were given the opportunity to transfer their new test skills to new test routes laid down in their local areas and to gain some practice before operational implementation on 1 July 2008. Sufficient LTOs were trained to cope with new test implementation on 1 July 2008 with the balance of them being progressively trained across the July-September 2008 period. VicRoads also controlled licence test booking levels across the CSC network to ensure that capacity was not exceeded during this ramp-up period.

### **Auditing/monitoring of the New Test**

Auditing and monitoring systems were developed and implemented to help monitor and maintain new test reliability across the successive trials and in support of operational implementation from 1 July 2008. This monitored performance at CSC and individual LTO level. Auditing and monitoring support initially took an educative approach to assist managers and LTOs come to adjust to the new test and its requirements. However, auditing/monitoring also alerted VicRoads management to aberrant assessment patterns and suggested remedial approaches. This was considered essential to help maintain reliability and equity across the network. Experience has shown that the creation and maintenance of consistency in respect of on-road testing is difficult and represents an ongoing challenge. [10]

### **Concluding Comments**

The development and introduction of Victoria's new drive test was a challenge for the test developers and for VicRoads but led to the production and implementation of a new test with respectable psychometric credentials which successfully discriminates between learners with and without high levels of supervised driving experience. This sets the new test apart from others as it discriminates on the basis of experience and is the product of a research-based approach which followed prudent psychometric principles. Furthermore, the new test was delivered within a tight timeframe and was introduced state-wide on 1 July 2008. This was achieved by managing and integrating the development of the new test in parallel with the operational planning and structures necessary to implement the test across the VicRoads' network and within the improved GLS.

It is hoped that the new test will not only serve as a valid and reliable assessment tool, for some years to come, but will also help motivate changes in the breadth and depth of the pre-licence training and development that Victorian learners receive.

While the new test is a worthy adjunct to the broader GLS improvements introduced into Victoria in 2007 and 2008, it is not yet possible to measure the impact and influence of this new assessment tool on novice drivers, their driving behaviour and crash risk. However, VicRoads will be monitoring the performance of the new test and may be in a position to assess its success and contribution to novice driver licensing in the years to come.

This paper presented only an outline of the key steps required to achieve implementation of the new test. As noted earlier in the paper, readers are directed to several companion papers that deal in greater depth with the development, trialling and underlying psychometrics relating to the new test [1, 2, 3]. In addition, information on the new drive test is also available at the VicRoads' website [4].

It is hoped that the content of this paper is of interest to other driving test developers and to driver licensing agencies that may be contemplating developing and introducing improved assessment tools for novice drivers seeking their initial solo licence.

### Acknowledgements

The project team responsible for the development of the new drive test, trialling and the final content of the test consisted primarily of John Catchpole, Antonietta Cavallo (VicRoads), Ron Christie, Warren Harrison, Darryl Johnston, Wendy Macdonald, Sophie Oh (VicRoads), and Tom Triggs. Other people assisted the project team at various times. Operational and logistic issues regarding introduction of the new test were handled by a dedicated team within VicRoads with responsibility for implementation of GLS initiatives. Management responsibility within VicRoads for all GLS initiatives, including the new test, rested with a group of senior managers led by the Deputy Chief Executive.

### Disclaimer:

The views expressed in this paper are those of the authors and do not necessarily represent those of VicRoads.

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