Updating the Motorcycle Test for 2009: exploring the training requirements for the off-road manoeuvres

S Tong
UPDATING THE MOTORCYCLE TEST for 2009: EXPLORING THE TRAINING REQUIREMENTS FOR THE OFF-ROAD MANOEUVRES

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Executive summary

Introduction

A new practical motorcycle test was introduced in Great Britain in April 2009 to comply with the 2nd European Union Driving Licence Directive. It was developed following public consultation and with input from industry stakeholders. The new test transforms the outgoing assessment into two parts: the first comprises up to 15 minutes on an off-road circuit, where candidates complete 11 manoeuvres at a range of speeds; the second is an accompanied ride on public roads to assess general road riding skills. The off-road component includes new manoeuvres such as an avoidance exercise and an emergency braking exercise, with both conducted at a measured minimum speed of 50kph (31.1mph), and both preceded by a cornering exercise at a minimum 30kph (18.6mph).

This avoidance exercise was designed to test a rider’s ability to steer positively and under control out of the path of an obstacle, replicating hazardous on-road events such as a vehicle pulling out. The commission behind the 2nd Driving Licence Directive was concerned that many deaths and serious injury crashes could have been avoided if riders had been trained to take avoiding action in such circumstances. Other manoeuvres in the new test require basic slow control skills (a slalom, figure of eight, U-turn, slow ride and manual handling).

The 2009 Motorcycle Test is intended to improve road safety standards for motorcycle and moped riders, who are at particularly high risk of injury or death. It also standardises the conditions under which motorcycle manoeuvres take place, to improve safety and consistency on test. The Driving Standards Agency (DSA) is creating a new network of Multipurpose Test Centres (MPTCs) to deliver the 2009 Motorcycle Test.

Approach

This research study was commissioned by the Department for Transport to explore the training requirements for the 2009 Motorcycle Test and the relationship between the training taken and subsequent performance on the off-road manoeuvring course. A dual-approach was used: the study began by interviewing 15 motorcycle instructors from 11 Approved Training Bodies (ATBs) about the new test and their proposed strategy for training future test applicants; this was followed by assessing how 50 applicants for the outgoing (2007) test fared when completing the 2009 off-road manoeuvres in a mock test situation. DSA provided test facilities and examiners. This research took place in 2007, in advance of the new test being introduced in April 2009.

Prior to mock-testing, participating ATBs were given information about the 2009 off-road test, which they could share with their participating trainees. Questionnaires were issued to ATBs and participating riders to identify the extent of pre-test training. Monetary incentives were offered to all participants. Instructors could supervise a 15 minute practice session for each trainee prior to the mock test. A DSA examiner then assessed participants’ performance on all the off-road manoeuvres of the 2009 Motorcycle Test. The results of participants’ subsequent 2007 Motorcycle Test were also obtained.

In light of the relatively small sample size, these findings can only provide an indication of training practices, applicant performance and other factors associated with the introduction of the new motorcycle test in April 2009.

Training and practice for the 2009 off-road test

ATBs chose how much (if any) training to give participants. Almost half (44%) received specific additional training for the 2009 off-road manoeuvres (which ranged from a further 10 minutes to six hours, with an average of three hours) and 78% had a 15 minute practice session before their mock test (ATBs did intervene during some practice sessions). If there were a similar response industry-wide, it would be reasonable to expect training courses to increase by approximately half a day to accommodate the 2009 test requirements.
Additional training and practice took place on DSA Motorcycle Manoeuvring Areas (MMAs), alternative off-road areas (such as sites used by ATBs for Compulsory Basic Training), and on-road. A high percentage chose to practice on a DSA MMA (almost four-fifths had at least a 15 minute practice session), indicating potentially high future demand for training access to DSA MPTCs. Instructors did make use of other off-road sites for training, although several were unsuitable for the speed-dependent manoeuvres (namely the 30kph cornering and the 50kph avoidance).

Several ATBs in the study considered it unsafe to bring otherwise ‘test-ready’ participants to the off-road test without having first equipped them with specific skills to complete all the manoeuvres in sequence (such as additional slow-ride ability, confident cornering and manoeuvring at higher speeds, and counter steering). There is some supporting evidence from this research that a lack of training and practice specifically for the 2009 off-road test might be associated with varying degrees of poor performance during the off-road test. These findings suggest an increase in the duration and range of training provided to new riders, which will perhaps deliver the improvement in road safety that is expected of the 2009 test.

The 2009 test manoeuvres

The avoidance exercise, alongside the 30kph cornering manoeuvre, is where the 2009 off-road test may require abilities that are potentially above the standard to which trainees may be trained currently. Participants and instructors reported that the avoidance manoeuvre was the most difficult exercise to learn and to teach, partly because some trainers believed it was appropriate to teach counter steering explicitly (even though it does develop naturally).

2009 test candidates are briefed to make the same observations during the off-road manoeuvres as they would on the public highway and this aspect of their performance is assessed throughout. The examiner reinforces this point several times during the assessment. However, when performing the off-road test manoeuvres for this study, participants did not always demonstrate safe traffic awareness and observation, which would have been reflected in the assessment. This was perhaps a product of the slightly artificial, traffic-free off-road environment. To help avoid a rise in incidents associated with ‘looking without seeing’, this report recommends that trainees be encouraged to continue to develop on-road experience of road-relevant manoeuvres (such as the U-turn and emergency stop) to ensure competence in realistic traffic conditions.

Overall, the 2009 off-road test demands that trainees be taught riding techniques, such as balance, speed control, cornering and vision with greater focus than perhaps they are currently.

2009 test performance

With 64% of the sample passing, the pass rate for the 2009 mock off-road test alone was almost the same as that for the outgoing (2007) Motorcycle Test at the time of reporting (the national pass rate in 2006-7 was 65%). However, only 43% of those for whom the results on both the mock and actual tests were known passed both tests (15 out of 35 participants). This combined pass rate mirrors the combination of off-road manoeuvring and on-road riding in the 2009 Motorcycle Test. It could indicate that pass rates may (initially at least) decline from recent levels. Overall, it seems likely that the 2009 Motorcycle Test will, through the introduction of new or differently assessed manoeuvres and through an increase in overall test duration, contribute to a lower pass rate than for the outgoing motorcycle test—unless candidates are sufficiently trained to deal with these challenges.

The 15 minute practice session

Participants who took a 15 minute practice on the DSA MMA prior to their 2009 off-road test were significantly more likely to pass. This was probably a product of participants...
being able to practise all of the off-road manoeuvres in sequence before taking the off-road test.

**Reaching the minimum speed**

Compared to other manoeuvres, it was most difficult and least likely for participants to reach the required minimum speed of 50kph on their first attempt at the avoidance manoeuvre. As reported anecdotally during the study, participants were conscious of having to accelerate somewhat counter-intuitively towards a hazard. The mock test results indicated that prior practice of the speed-dependent manoeuvres might contribute to improved performance here. This experience could either be obtained in earlier training exercises (given a suitably sized off-road site) or during a 15 minute practice session.

**Conclusions**

ATBs agreed to a varying degree that the new 2009 Motorcycle Test will:

- Standardise the testing conditions for manoeuvres (particularly the U-turn and emergency braking).
- Deliver an improved standard of riding amongst newly qualified motorcyclists.
- Reduce the number of riders who pass their test having received only minimal training.

The logistical challenge of ATBs accessing off-road sites of an appropriate size to train for the 2009 test may be overcome if DSA can provide each candidate the option of a practice session on a DSA site prior to their 2009 test. The demand for access to appropriate training facilities is an overall indication of the potentially positive impact of the 2009 off-road test on the training industry. It suggests that the motorcycle training industry recognises the demand for—and intends to deliver—a higher standard of training than for the outgoing test. This higher standard is primarily a product of new, speed-dependent manoeuvres (cornering, avoidance and emergency braking) but also stems from a more demanding set of slow control manoeuvres.

**Recommendations**

On the basis of these results, it is recommended that:

- All ATBs experience the 2009 off-road test prior to providing trainees with training for it. DSA has already provided several opportunities for ATBs to trial the test prior to April 2009.
- Further information on the 2009 Motorcycle Test and the requirements of the off-road component should be made available for instructors and trainees alike.
- Instructors should continue to provide on-road as well as off-road training for off-road test manoeuvres that can be practised safely on-road.
- Applicants for the 2009 test should experience 15 minutes of training or practice on an off-road site large enough to replicate the full test circuit in sequence. A recommended route to achieve this goal is for DSA to allow trainees to use a DSA MMA to practice the off-road manoeuvres.
- ATBs should offer 2009 test applicants a training course that at least familiarises them with the complete sequence of off-road manoeuvres to reduce the potential for confusion and errors during the test.
- ATBs should consider the inherent value of counter steering for the avoidance manoeuvre and ensure that trainees can counter steer appropriately based on indirect or explicit instruction.
1 Introduction

1.1 Background to the 2009 Motorcycle Test

In April 2009, Great Britain adopted a new practical motorcycle test to comply with the 2nd European Union Driving Licence Directive. This new test was developed after public consultation and with input from the motorcycle industry. This study was part of that process and took place during 2007.

Prior to the new test, motorcycle test candidates were assessed on public roads only. The 2009 Motorcycle Test transforms the existing test into a two-part assessment: the first module comprises up to 15 minutes on an off-road circuit, where candidates are asked to complete 11 manoeuvres at a range of speeds; the second module is an accompanied ride on public roads to assess general road riding skills.

The objective of the new motorcycle test is for candidates to be able to demonstrate competent control of their machines over a broader and more demanding range of manoeuvres than for the outgoing test. The new test format will also standardise the conditions under which motorcycle manoeuvres are examined, bringing improvements in safety and consistency. Overall, the new test is intended to improve road safety standards for motorcycle and moped riders, who are at particularly high risk of injury or death.

Figure 1.1: A DSA Motorcycle Manoeuvring Area for the 2009 off-road test at an MPTC

The 2009 off-road test will be delivered from a network of Multipurpose Test Centres (MPTCs) providing both motorcycle rider testing and, in most centres, also car driver testing facilities. The Driving Standards Agency (DSA) is continuing to establish additional MPTCs across Great Britain (Figure 1.1). MPTCs started module 1 motorcycle testing from April 20091.

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1 To increase service coverage for the new test, its introduction was delayed for six months from October 2008 to April 2009. This also provided opportunities for further consultation, which prompted the move to a modular two-part test. This allows for a more structured approach to training.
At the time of reporting, it was recognised off-road manoeuvring might introduce difficulties for Approved Training Bodies (ATBs) when training riders for the 2009 Motorcycle Test. To replicate the complete sequence of off-road manoeuvres, a site measuring 40 metres by 125 metres is needed—although a narrower site does allow separate replications of the left and right-handed circuits provided that the circuit markers are rearranged for each orientation. As this requirement is substantially larger than the minimum site dimensions for Compulsory Basic Training, most ATBs do not have sufficient space to reproduce the off-road test in its entirety. However, individual or shorter sequences of manoeuvres could be practised off-road in smaller spaces. Since the research was conducted, DSA have made provision for training at MPTCs (Section 7).

1.2 The research and its objectives

This research study was commissioned by the Department for Transport to explore the training requirements for the 2009 Motorcycle Test, and to obtain an indication of the relationship between the training taken and subsequent performance on the off-road manoeuvring course. It was commissioned in 2006 and the research took place in 2007 as part of the preparation for the formal introduction of the 2009 Motorcycle Test.

The specific objectives of this research study were to investigate:

i. the proportion and characteristics of riders who pass/fail the off-road component of the 2009 Motorcycle Test (having been considered ‘test-ready’ for the 2007 Motorcycle Test, and having received any additional training that their ATB believed was necessary for the 2009 test);

ii. the extent of additional training that ATBs propose to provide trainees to assist with passing the 2009 Motorcycle Test, with specific consideration being given to the training facilities available to ATBs; and,

iii. the relationship between training provisions and participants’ ability when taking the off-road component of the 2009 Motorcycle Test.

The training requirements for the off-road manoeuvres were explored by engaging ATBs:

- firstly, through depth interviews;
- secondly, with experimental research to assess applicants for the off-road manoeuvres in a mock test situation.

For the mock tests, ATBs were invited to enrol existing trainees just before they took their 2007 Motorcycle Test, to best replicate the conditions of the 2009 test.

The study was completed in collaboration with DSA, who provided test facilities and examiners. The research was conducted with a view to providing timely feedback to DSA on some of the key issues related to the 2009 Motorcycle Test.

1.3 Structure of the report

Further sections of the report are structured as follows:

- **Section 2** outlines the off-road manoeuvres of the 2009 Motorcycle Test.
- **Section 3** describes the method of approach to this research study.
- **Section 4** presents the research findings.
- **Section 5** summarises the research findings.
- **Section 6** provides conclusions and recommendations.
- **Section 7** summarises the current provisions made by DSA for the 2009 test.
2 The off-road manoeuvres of the 2009 Motorcycle Test

The off-road component of the modular 2009 Motorcycle Test is delivered on a specially surfaced Motorcycle Manoeuvring Area (MMA). MMAs are designed to provide sufficient grip in both wet and dry conditions. The off-road course for the 2009 test introduces new manoeuvres and transfers several existing manoeuvres (such as the U-turn and emergency stop) from the outgoing on-road assessment. The off-road course provides a safe and consistent test environment and provides examiners with a better view of any motorcycle control faults. By incorporating all the existing manoeuvres into the off-road course it has been possible to develop the routes used for on-road testing so that they include a broader range of hazards and reduces many of the potential risks associated with manoeuvring in road traffic.

The off-road test can be conducted on either a left circuit (the 30kph circuit ride is anticlockwise and the avoidance manoeuvre is to the left) or a right circuit (the 30kph circuit ride is clockwise and the avoidance manoeuvre is to the right). Alternate use of the left and right circuits encourages training in both directions and reduces the level of wear on particular parts of the MMA surface. It also provides DSA examiners with further options to continue testing should a spillage occur on one part of the circuit (see Appendix A for graphical illustrations of the course).

The off-road course comprises manoeuvres in the following order:

1. **On and off the stand:** candidates are required to demonstrate their ability to safely secure the motorcycle on either the centre or side stand.

2. **Wheel the machine:** candidates are required to safely and under control reverse the motorcycle from a parked position within a bay into an adjacent bay marked with cones, ready to begin the riding manoeuvres. This manual handling exercise can be completed in more than one manoeuvre.

3. **Slalom:** candidates are instructed to complete a slalom ride between five cones, and then proceed immediately into the next manoeuvre, a figure of eight.

4. **Figure of eight:** candidates are required to perform two figures of eight around two cones placed at the end of the slalom manoeuvre.

5. **30kph circuit ride (curve to left or right):** upon completing the figures of eight, candidates are required to corner within the full width of the MMA at a speed of at least 30kph (18.75mph). Their speed is not measured but 30kph is required to enable the minimum speed of 50kph to be reached for the avoidance exercise.

6. **50kph avoidance:** the 30kph circuit ride should enable candidates to build speed to a minimum of 50kph before passing through a ‘gate’ with a speed measurement device (Figure 2.1). Speed is measured immediately prior to the avoidance exercise. Candidates must direct the motorcycle either left or right (based on whether the left or right-handed circuit is being used) between offset cones and then bring the machine back to an upright position before any braking takes place.

7. **Controlled stop:** upon completing the avoidance exercise, candidates are required to bring the motorcycle to a safe and controlled stop, with the front wheel placed between two pairs of cones set one metre apart.
8. **U-turn**: candidates have to complete a U-turn within a 7.5 metre width between two painted lines.

9. **Slow ride**: candidates are required to ride at ‘walking pace’ for 17 metres alongside the examiner.

10. **30kph circuit ride (curve to left or right)**: candidates repeat this cornering exercise at a speed of at least 30kph (18.75mph). Their speed is not measured but DSA trials have shown that 30kph is required to enable the minimum speed of 50kph to be reached for the emergency brake exercise.

11. **50kph emergency brake**: as before, candidates are expected to use the 30kph circuit ride to enable them to reach at least 50kph before passing through the speed measuring device. After doing so, they should expect to perform an emergency stop when indicated by the examiner raising their hand (a pre-arranged signal).

After the emergency stop, module one of the off-road test will be complete, unless the candidate has not achieved a minimum of 50kph prior to the avoidance exercise and the emergency stop. If not, a second opportunity to reach the required speeds is provided for both of these exercises.

When completing the off-road manoeuvres, candidates are expected to demonstrate the same levels of awareness and observation as they would on-road. Examiners mark any poor observation as a fault. Up to fifteen minutes is allowed for the off-road manoeuvres in the 2009 Motorcycle Test, even though a rider will typically complete all the manoeuvres within eight minutes. The additional time allows for second attempts at attaining the minimum speeds.

![Figure 2.1: An example of the device used by DSA to measure motorcycle speed during the 2009 off-road test](image-url)
3 Methodology

The two phases of the study are described in the following subsections.

3.1 ATB interviews

Approved Training Bodies were sampled in the vicinity of three new Multipurpose Test Centres (at Gloucester, Ipswich and Shrewsbury) and the DSA Training Centre in Cardington, Bedfordshire. ATBs were only sampled if they provided training leading to obtaining licences in Category A or Category A1; those ATBs which only provided Compulsory Basic Training were not included as they would be unaffected by changes to the Motorcycle Test in 2009.

ATBs were identified by searching local service directories. DSA also provided lists of trainers who regularly brought candidates for test at the three selected MPTCS or who tested in the vicinity of Cardington. ATBs were initially contacted by telephone to discuss with them the requirements of the research and to request their participation. These trainers were subsequently invited to take part in a face-to-face interview to discuss their perspectives on the 2009 Motorcycle Test, their training ideas for the new test and the logistics of them supplying participants for the study.

A topic guide was developed for the face-to-face interviews (Appendix B). ATBs were encouraged to discuss:

- Current knowledge of the 2009 Motorcycle Test (the structure of the test, the new manoeuvres, the reasons for its introduction).
- Current practical experience of the 2009 Motorcycle Test (e.g. had they seen or taken a mock version of the off-road test).
- Ideas for training riders to take the 2009 Motorcycle Test (e.g. did they feel additional training was necessary and, if so, how would they provide it).
- Facilities for training riders to take the 2009 Motorcycle Test.
- Expected cost and duration of additional training for the 2009 Motorcycle Test.
- Perspectives on DSA proposals to allow access to MPTCs for training purposes (including feedback on the various fee structures being proposed).
- Additional comments or concerns regarding the training of riders for the 2009 Motorcycle Test.
- Feasibility of participating in the research by providing trainees for mock off-road tests (including options for incorporating the mock test in a Direct Access course).

The interviews were designed to provide further information to determine what else ATBs would need to know in order to take part in the mock test procedure in the second part of the research. This also included establishing if they needed an opportunity to try the off-road course, before training any of their students to do so, and if their schedules would accommodate additional training and mock testing without affecting training for their 2007 Motorcycle Test. The interview data was also expected to inform the content of related questionnaire materials that would be used to collect supplementary data during the mock off-road tests.
3.2 Off-road mock tests

3.2.1 Development and distribution of information about the mock test

Prior to participating in the research, information about the off-road test was offered to Approved Training Bodies. It was intended that they would have access to a level of knowledge about the 2009 Motorcycle Test that would be similar to that available to the industry before the implementation of the new test in April 2009. Upon agreeing to provide participants for the mock tests, ATBs were sent information packs that included:

- A letter specifying the terms and conditions of participation (Appendix C)^2. The letter stated:
  - the incentives that were on offer (£75 direct to each mock test participant; £50 to the ATB for each student that they recruit)
  - the requirement to take the mock test before the 2007 Motorcycle Test
  - the option for a 15 minute practice session on the DSA off-road site
  - the requirement to complete questionnaires

- A set of Frequently Asked Questions about the 2009 Motorcycle Test (Appendix D). The FAQs captured information on the reasons for the new test, the content and duration of the off-road component, the availability of training and practice facilities, and the general administration of the new test.

- Plans of the off-road course for the 2009 Motorcycle Test (Appendix A). Several diagrams were provided to illustrate the layout of the off-road circuit in both left and right configurations, with the distances between cones clearly specified. This level of detail had been requested by some ATBs to enable them to recreate elements of the off-road course on their own manoeuvring areas.

- A DVD of a candidate being examined conducting the off-road manoeuvres for the 2009 Motorcycle Test. DSA gave permission for copies of its prototype promotional DVD to be distributed to participating ATBs for reference. The DVD presents a film of a motorcyclist being ‘tested’ on the off-road manoeuvres by a DSA examiner. The examiner’s instructions were not audible during the film (this was revised for an update of the DVD released prior to April 2009).

In addition, it was possible to offer ATBs the opportunity to try the off-road test if they had not experienced it. Working with DSA, dates were made available for instructors to visit an MPTC or Cardington to trial the off-road manoeuvres with a DSA examiner. A small number of ATBs had requested this opportunity and four trainers took the opportunity.

3.2.2 Training options for the mock test

Participant training and practice for the off-road mock test was provided at the discretion of ATBs. Information about the duration and content of any additional training was captured by questionnaires that were issued to participants and ATBs when arriving for the mock test. ATBs had several options for further training. They could:

- Provide specific training for the off-road mock test using their own off-road sites (e.g. CBT areas)

^2 One of the initial conditions had been to only include trainees on a Direct Access (DAS) course, thus restricting the sample to motorcycles of 500cc or above. The interviews with ATBs revealed that scheduling additional training and a mock test during a DAS course would be difficult to achieve. They suggested that other trainees learning on a regular basis, or those taking a test on a 125cc motorcycle, would be equally suitable. The potential sample was therefore expanded to include those trainees who were not on a DAS course.
• Provide specific training for the off-road mock test using a DSA MPTC before the day of the test. The Motorcycle Manoeuvring Areas at some MPTCs were made available during the study for ATBs to train their participants (albeit for a limited duration as DSA examiners had to be present for safety).

• Utilise the DSA off-road circuit on the day of the mock test; if ATBs made advance arrangements, they could spend a short amount of time (typically not more than an hour in total) on the MMA with one student at a time.

• Take a 15 minute practice session on the off-road circuit prior to taking the mock test.

It was also acknowledged that some ATBs opted not to provide their participants with any additional training, especially as some had reported that their current training provision was already sufficient for their students to pass the 2009 Motorcycle Test.

3.2.3 Mock test procedure

Where possible, each mock test was arranged to occur the day before a participant was due to take the outgoing (2007) Motorcycle Test. This ensured that participants were ‘test ready’ and best replicated the test conditions of the new 2009 Motorcycle Test³. This was a logistically complex task as the availability of ATBs and DSA examiners⁴ was limited. It required arranging for several instructors, trainees and two DSA examiners to be present on the same day in one location. ATBs in the study trained to a tight schedule and it was often difficult for them to find the time during a training course to bring a trainee for a mock test. This was largely due to training courses often starting on weekends or Mondays, with the practical test being pre-booked for the end of the same week. It was therefore difficult for instructors to find an extra half-day to prepare and bring trainees for a mock test.

Each session of mock tests was conducted in the same way. A member of the TRL project team greeted each ATB and their trainees on arrival at one of four DSA MPTCs, located in Cardington, Gloucester, Ipswich and Shrewsbury. Before any testing began, ATBs and participants were provided with questionnaires to complete⁵. The questionnaire for participating trainees (Appendix E) included question items regarding the amount and type of training, the ease or difficulty of the new manoeuvres, levels of confidence and prior riding/driving experience. To help participants complete the questionnaire, a diagram of the off-road circuit was provided, complete with a list of the individual test manoeuvres. Another questionnaire obtained instructor’s perspective on similar items (Appendix F). ATBs completed one questionnaire for each trainee that they recruited to the study. In addition, all participants were invited to complete claim forms to receive their incentives.

Before being tested, trainees and their instructors could view the off-road circuit and ask the DSA examiner questions about the structure of the test. Once familiar with the site, instructors were able to supervise a 15 minute practice session for each participating trainee, if required. This session was used to go through the off-road manoeuvres and sequence and to gain experience of riding within the MMA prior to the test. It was not considered specifically as ‘training’. The DSA examiner was not always on the MMA during this session. After completing 15 minutes of practice, the ATB and participant vacated the site and the DSA examiner led the participant back onto the MMA under test

³ Since the research was commissioned, DSA has opted for a modular test where applicants will not proceed directly to the on-road assessment. This may mean that some applicants may not be ready for all aspects of the Motorcycle Test when they were presented for the off-road Module 1 test.

⁴ DSA had not begun training its examiners to deliver the 2009 Motorcycle Test at the time of conducting the research. Therefore, just four DSA examiners were available to administer all of the mock tests and oversee any additional, on-site training and practice. These four examiners had to cover all four MPTC locations.

⁵ ATBs who had sought permission to train participants on the DSA site were given an opportunity to train their students before completing the questionnaires.
conditions. The mock off-road test was then delivered by the examiner as outlined in Section 2.

Participants were not immediately given feedback on their test performance. So as not to adversely affect their performance on the 2007 Motorcycle Test, negative feedback and test results were not given until after the 2007 test was taken. The exception to this was when all participants in a session were successful; on such occasions, the attending DSA examiner summarised the success of the group and gave positive feedback.

Each participant was asked for the date of their forthcoming 2007 Motorcycle Test and for their permission to release the results of this test. These results were subsequently combined with those of the mock off-road test.

4 Results

4.1 ATB interviews

Interviews were held with 15 different training instructors representing 11 Approved Training Bodies. The findings are reported in this sub-section. Four ATBs were recruited during an open day to showcase one of the MPTCs to local training providers. The remaining seven were recruited by telephone. Due to the small sample size, the results should not be considered as a quantitative representation of the views expressed by ATBs. They should instead be approached as a qualitative presentation of collective opinion. Where appropriate, the number of ATBs providing a specific response has been indicated. While these figures are helpful in describing the sample, they are not an indication that similar proportions of the general training industry would share the same opinions.

4.1.1 Sample characteristics

A broad range of ATBs participated in the face-to-face interviews:

- Four ATBs were small, independent training providers with 1-2 instructors. One instructor was interviewed from each of these ATBs.
- Three ATBs were medium, independent training providers with 2-5 instructors. A total of four instructors were interviewed from these three ATBs.
- One ATB was a large, independent training provider with more than 5 instructors, of which 4 were interviewed.
- One ATB formed part of a small chain of medium-sized training providers (2-5 instructors in each branch). One instructor took part in the interview.
- One ATB formed part of a medium chain of medium-sized training providers (2-5 instructors in each branch). One instructor took part in the interview.
- One ATB formed part of a large, national chain of medium-sized training providers (2-5 instructors in each branch). The company owner was interviewed.

Each training provider offered courses to prepare applicants for all Category A motorcycle examinations. One ATB instructed on a one-to-one basis only, whereas the remaining ATBs generally instructed two trainees at a time.
4.1.2 **Existing knowledge and experience of the 2009 Motorcycle Test**

Representatives from each of the sampled ATBs generally demonstrated at least a basic understanding of the 2009 Motorcycle Test and the specific manoeuvres required for the off-road component. The impetus for the 2009 test (the 2nd European Driving Licence Directive) was largely known to them. However, less than half (four ATBs) were able to support this knowledge with practical experience of the off-road manoeuvres (e.g. at a DSA open day). Nevertheless, **all but one of the training providers believed it was essential for an instructor to have experienced the off-road test prior to providing training for the 2009 Motorcycle Test**\(^6\).

First-hand experience of the off-road manoeuvres reduced the potential for ATBs to misconstrue the test requirements. For example, one instructor who had not yet experienced the off-road test had misinterpreted the 50kph avoidance manoeuvre: rather than seeing the preceding 30kph corner as a separate manoeuvre, this instructor thought the two were combined in a way that required braking whilst cornering. **This was (justifiably) perceived as a dangerous requirement and, without experiencing the test before offering training, could have contributed to inappropriate instruction being given.**

Two further interviewees, who had tried the off-road manoeuvres prior to being interviewed, helped to demonstrate the advantages of experiencing the test beforehand. They both acknowledged that, in practice, the off-road test was not as complex as it had appeared on paper—and that those aspects of the test that may have first appeared rather opaque (such as the requirements of the avoidance manoeuvre) were now far clearer.

The desire for further information about the 2009 test was not universal. Several ATBs saw benefit in receiving detailed diagrams of the off-road test (including the dimensions of the course and the distances between cones) and a video of the 2009 test being delivered by a DSA examiner. However, there was a desire from some ATBs not be ‘saturated’ with information. Any information about the new test may be more effective if it concisely targets the new test requirements and related issues. One item for emphasis would be the unique qualities of the 2009 test; some interviewees had a nonchalant approach to the new test as they saw many parallels with previous tests such as the pre-1989 ‘Part 1’ assessment, which was conducted off-road, and indeed the current CBT test\(^7\). This could possibly reduce the impact and effect of the 2009 Motorcycle Test if it is seen as ‘more of the same’ rather than a new development.

4.1.3 **Sites for off-road training**

All ATBs in the sample had access to one or more off-road sites for training purposes. To safely complete all of the new test manoeuvres, DSA uses an off-road site of 125x40 metres. This was larger than the size of off-road sites available to most ATBs that were interviewed. Five described their sites as small; they were not much larger than the minimum dimensions of a site for CBT (24.4 x 9.2 metres - less than a twentieth of the size of the MMA for the new test). Two had access to off-road sites which were described as ‘average’ in size. None of these ATBs could recreate all of the off-road manoeuvres for the 2009 Motorcycle Test on the sites they had available. This is a potential problem for motorcycle instructors who wish to replicate the full sequence of new off-road test manoeuvres in a safe environment. **Very few (just two) of the**

\(^6\) This was addressed in summer 2008 when DSA organised a series of open days for ATBs to attend MPTCs. Instructors could gain first-hand experience of the off-road test and DSA examiners were present to answer any questions regarding the new test. Further to this, DSA hosted a conference for trainers in January 2009 at the National Motorcycle Museum. The conference focused on the new tests and gave the industry further opportunity to provide input.

\(^7\) It should be noted that the new off-road test is distinctly different to previous assessments. For example, the Part 1 Motorcycle Test from 1989 was a fault-marking exercise with no assessment of underlying competence as with the 2009 test.
ATBs in the sample had access to off-road sites which were sufficiently large to allow them to replicate all of the 2009 test manoeuvres in sequence. One national training provider in the sample had 12 sites of which one was large enough to accommodate safe, off-road training for all the new test manoeuvres in sequence.

4.1.4 Training plans

ATBs were invited to discuss their initial plans for training candidates for the 2009 Motorcycle Test. Their responses provided insight into the different approaches that training providers may take before the new test is introduced, and gave an indication of where further support or information may be required. Dissemination of some of their views may also reassure other members of the motorcycle training industry that their thoughts and concerns are shared by other instructors. Differences of opinion may have been a product of not having started training for the 2009 test, and industry views of the test may be more aligned now it has been introduced.

Importantly, there was not consensus across the sample that the forthcoming 2009 Motorcycle Test required additional training. It was suggested that current training practices could equip trainees with all of the skills they require to competently perform the off-road test manoeuvres. There was certainly much agreement that the use of motorcycle stands, manual handling of the machine, and completing a figure of eight were all skills largely covered during CBT in an off-road environment. There was less agreement regarding the approach to training for the other test manoeuvres:

- Emergency braking was assessed (on-road) prior to the 2009 test and so forms part of the existing training offered by ATBs in the sample. However, the 2009 test requires candidates to stop from at least 50kph (approximately 32mph), rather than about 30kph (approximately 20mph) as practised generally prior to the new test. Some ATBs in the sample reported that training emergency braking at this higher speed would be impractical at off-road sites smaller than a MMA. They were also concerned about the safety of training for this on-road.

- There was disagreement amongst some of the trainers about the figure of eight and slalom manoeuvres from the 2009 off-road test. They were either thought to be no different from CBT slow riding manoeuvres (thus warranting no further instruction) or were seen as more demanding than CBT and thus requiring further tuition. ATBs who saw a need for additional off-road tuition for these manoeuvres believed that the 2009 Motorcycle Test was looking for a level of slow control that was above the standard required to pass the pre-2009 test.

- It was agreed by all ATBs in the sample that if the speed-dependent cornering (see Figure 4.1) and avoidance manoeuvres were to be practised off-road, it would require a site similar in size to the MMA. However, it was suggested that some on-road riding could develop essential skills for these manoeuvres; for example, higher speed road rides could improve cornering ability and skills for leaning the motorcycle during direction changes. Nevertheless, ATBs generally preferred to access MPTCs to provide training for the 30kph circuit ride and the 50kph avoidance manoeuvre. Although they felt that their students would be largely competent on these manoeuvres with their current instruction, there were some unique characteristics that they wanted trainees to experience prior to a test situation. For example, ATBs wanted trainees to ‘feel’ that they were riding at the necessary speed, rather than succumbing to ‘speedo fixation’ which would distract them from their manoeuvres. They also wanted trainees to experience the directional change required for the avoidance exercise at speed, believing that there may be fewer opportunities to practice this safely on the road.
Two further reasons for making the DSA MPTCs available for training also emerged during the interviews. The first was to experience the off-road circuit in its entirety before being tested. ATBs expressed a strong, if not universal, preference for trainees to link all of the manoeuvres in sequence, as they would under examination. Although it was acknowledged that each manoeuvre could be effectively taught in component form, ATBs were uncertain whether their trainees would be able to competently complete the sequence of manoeuvres if facing it for the first time. ATBs in the sample were worried that trainees would be confused if faced with a mass of unfamiliar cones, and this would contribute to any nervousness and detract from their test performance. Experiencing the off-road circuit before the test was expected to combat such anxiety. Even though a DSA examiner intervenes between most manoeuvres to explain the next manoeuvre in the sequence, some interviewees claimed that poor English comprehension, anxiety or misunderstanding were all more likely to contribute to failing the off-road test if it was being attempted for the very first time. **One of the views expressed was that for the off-road test to be culturally accessible and completely fair, candidates need prior practical knowledge of what comes next, rather than relying solely on the examiner’s instructions.** Since the interviews, DSA have taken measures to ensure that the 2009 test is accessible and these measures are described in section 7).

A second common justification given by the sample of ATBs for requesting access to MPTCs was to utilise the speed measurement equipment. As the 2009 Motorcycle Test specifies and measures a minimum speed for two manoeuvres, ATBs were keen that trainees should be capable of practising the speed and attaining it without reference to the speedometer. Practising this skill was reported to be infeasible on most off-road training areas, unsafe on the road, and impossible at accurately measured speeds without ATBs purchasing expensive equipment.

Trainers had some additional suggestions for delivering further training:

- Use of visualisation aids to describe the off-road test manoeuvres to trainees (e.g. reference to a video recording of the test or a diagram of the circuit). (These materials are now available from DSA and the examiner does show candidates laminated cards of the course layout during the off-road test).

- Introduction of test manoeuvres during regular training (e.g. when a trainee dismounts, regularly request them to push their bike backwards as per the test,
or, if passing an off-road training area when riding, stop periodically to practice slalom/figure of eight). This approach was suggested to integrate the new test requirements with current training practices.

- Modular tuition of test manoeuvres, with each manoeuvre separately introduced and practised off-road (where appropriate). This approach—which differs from the previous approach—was suggested to try to segregate the new test requirements from current training practices.

- Introduce some trainees to counter steering8 to facilitate completing the avoidance manoeuvre. This suggestion came from a few trainers, and the subject of counter steering is a contentious one amongst motorcycling trainers and testers. Some believe it should never be taught as an overt skill. Others believe it should be taught only to advanced riders, and some (as reported above) believe that it can be useful to teach it to learners. The main arguments are to do with, (a) the fact that counter steering develops naturally (all normal motorcycle steering is in fact by counter steering, though the rider may not be aware of this), (b) a concern that teaching riders overt counter steering may cause them to act unsafely in an emergency, and (c) a belief that for at least some riders, it is helpful and appropriate to teach counter steering. Scientific evidence is lacking here.

4.1.5 Duration and costs of additional training

The amount of additional training proposed by ATBs for the 2009 Motorcycle Test ranged from one hour to one day and differed not only between ATB but also within ATBs, where it was reported that some trainees would require different amounts of training to others. There may be ATBs who choose to offer no additional training; however, it should be noted that these estimates were obtained prior to the introduction of the 2009 off-road test, and at a time when it was envisaged that the 2009 test would be a single assessment rather than modular.

The responses from ATBs indicated that when additional training is offered, it will probably involve a session of up to three hours where the manoeuvres are practised and linked together (perhaps at a DSA MPTC). A more comprehensive addition to the training programme might require an extra half or whole day of training. ATBs offering Direct Access Scheme (DAS) courses will be more likely to offer one additional day as the intensive scheduling of current courses means there is little opportunity for covering any further material without increasing training time. Where feasible, some ATBs may increase DAS courses by half a day only. However, such estimates were based on a single event test and they may no longer apply now that the 2009 test is modular.

Trainers participating in the interviews universally believed that the 2009 Motorcycle Test would incur additional costs for both ATBs and applicants. As the new test had not been introduced at the time of the research, costs could not be fully quantified. However, ATBs were certain that the cost of training to ride a motorcycle would increase substantially in 2009. Specifically, they expected:

- A rise in DSA test fees, to cover the provision of a longer test and new facilities, as well as the proposed option to allow applicants to book a longer test with a 15 minute practice on the MMA prior to being assessed (which was expected to be popular).

- Additional DSA fees for the hire of MPTCs for training purposes. These would be passed on to candidates and were anticipated to be at least £15, depending on how much time was required on the off-road circuit.

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8 Counter steering is a method of effectively controlling the direction of a machine whilst negotiating hazards such as bends and corners.
• **Additional training fees.** ATBs anticipated charging anything from one extra hour to one extra day for the additional training required to take the off-road test. An extra day of DAS training might cost trainees approximately £100.

• **Additional insurance, maintenance and fuel surcharges** to cover the increased demands of the new test. ATBs were concerned that the off-road test may increase insurance premiums, that the new off-road manoeuvres may increase damage, wear and tear on motorcycles, and the travelling to new MPTCs (perhaps for training as well as testing) was expected to increase fuel costs as they are not as localised as current Driving Test Centres.

The current provision for training access and the associated cost is outlined in section 7.

### 4.1.6 Perceived benefits of the 2009 Motorcycle Test

Interviewees agreed to a varying extent that the new 2009 Motorcycle Test will deliver an improved standard of riding amongst newly qualified motorcyclists. There were different perspectives on how improvements would manifest themselves. There was a belief that some of the off-road manoeuvres would improve riding skills, especially slow riding skills, when compared with CBT requirements. There was also a view that even if riding skills were not significantly improved, the requirements for the off-road manoeuvres would at least filter out some of the less competent candidates who perhaps had not received sufficient training. In particular, ATBs expected the 2009 test to bring a reduction in the number of licensed riders with minimal training because some of the briefest DAS courses (of approximately two days) might be insufficient preparation for candidates to pass the 2009 Motorcycle Test.

The introduction of the avoidance manoeuvre was generally welcomed by interviewees but was also believed by some to lack validity: some interviewees claimed a rider would not plan to avoid a hazard over such a short distance, and they would be unlikely to move to the left in most riding situations (as they must for the left-hand off-road circuit) as they may strike a kerb. Nevertheless, ATBs supported the avoidance manoeuvre because it enables new trainees to experience controlling a motorcycle during a more extreme manoeuvre than they would ordinarily practice on-road.

**Standardisation of the U-turn manoeuvre and the emergency stop were two specific benefits of the 2009 test according to ATBs.** Training providers claimed that conducting these manoeuvres off-road, in a controlled and standardised environment, would improve the safety, fairness and quality of the Motorcycle Test. It was felt that candidates would benefit from a consistent road surface without unusual cambers, kerbs or debris. The off-road test was reported to offer improved safety for these manoeuvres and improved ‘fairness’ by limiting the number of extraneous factors that could influence candidate performance. Examples were cited of previous candidates allegedly failing these manoeuvres on-road due to extreme cambers when performing U-turns, or from losing control on damp, debris-strewn or damaged road surfaces during an emergency stop (see Figure 4.2). In addition, ATBs noted that by segregating the slower manoeuvres from the road-riding exercise, examiners would be able to make a more complete assessment of on-road riding ability based upon a longer, less interrupted journey.
Perceived concerns regarding the 2009 Motorcycle Test

There were reservations from ATBs about how the artificial environment of the off-road circuit might reduce the validity of training and assessing candidates. Although candidates are expected to make observations on the circuit as if in traffic, it was argued by some ATBs that the observations will probably be cursory and may contribute to the phenomenon of ‘looking but not seeing’. Better traffic observation might come if ATBs provided training for both the U-turn and emergency stop on-road; however, some interviewees thought this less likely if candidates are only assessed off-road, with the higher speed required for the emergency stop also making it harder to train safely on the road.

Several logistical concerns were also reported by training providers:

- **Waiting times for the 2009 Motorcycle Test were feared to increase** as each MPTC will be consolidating several existing Driving Test Centres within a wider area. A subsequent impact on waiting times for re-tests was also predicted by ATBs. They claimed this was undesirable as candidates typically took little or no additional training between re-tests and their riding skills might decline even further between tests. However, the move to a modular test since the research was carried out means that many existing DTCs will continue to offer on-road motorcycle tests after April 2009.

- **Most trainers were not expected to have access to off-road sites that would be large enough to replicate all of the new off-road test manoeuvres.** Interviewees indicated that they would require access to new MPTCs to provide training for the off-road test. As well as anticipating increased costs (travel to and from each MPTC and possible access charges), training providers were also worried that MPTCs simply would not have the capacity to offer both testing and training facilities.

- With the feared increase in training costs for the 2009 Motorcycle Test (for hire of MPTCs/facilities, for increased travel and for increased hours of tuition) came fears of a subsequent reduction in the attractiveness of motorcycling as a
lower cost mode of transport. There were further concerns that the cost implications might even be great enough to socially exclude low income groups from learning to ride.

DSA consulted with appropriate health and safety organisations to approve the design and construction of MPTCs and off-road circuits. By assessing manoeuvres off-road, many of the potential risks of on-road assessments (such as variable road conditions and traffic) are removed and replaced with more controllable risks. However, several ATBs perceived that there were still specific, safety-related issues with completing manoeuvres on the off-road course. It was acknowledged by several ATBs that many of their concerns about the safety of candidates during the 2009 test could be mitigated with thorough and appropriate training. Their concerns included the following:

- **The proximity of the fencing surrounding the MMA and the kerbing at the edge of the tarmac surface was described by interviewees as a potential hazard.** It was claimed that the design of the off-road circuit permitted little room for error and, if a candidate was to make a minor error, there was limited run-off area between the course area and the MMA fencing. Moreover, several manoeuvres (e.g. the U-turn and the 30kph circuit ride) require manoeuvring close to the edge of the circuit which, for the MPTCs used for this study, were bordered by high kerbs. It was feared that a rider could be destabilised if they were to hit a kerb, making the absence of a run-off area between the kerb and the fence even more of a safety concern. Trainers were more anxious about some MPTCs than others, as the style of fencing did vary. Some MMAs were bordered by inflexible iron railings, allegedly with sufficient space between each railing to trap limbs, or the handlebars or wheels of a motorcycle. However, risks of a similar or greater magnitude would be present if manoeuvring was assessed on-road and the MMA does at least allow many risks to be minimised and standardised.

- **Debris or contaminants (e.g. oil) on the surface of the MMA were further risks** that some ATBs had considered to be safety critical, despite similar or greater risks being present on public roads. The presence of such contaminants (or indeed a subsequent accident) on the off-road circuit might also lead to the loss of training or testing time on a site. It should be noted that DSA has policies in place to ensure that candidates do not ride on the MMA if the surface is dangerous. Prior to every test, the MMA surface is checked and contractors clean sites professionally if required.

- **Minimum speed requirements were described by some ATBs as a risk to candidate safety,** especially if riders felt uncomfortable with meeting the minimum speed requirements within the confines of the MMA. Some ATBs were also concerned that candidates who do not achieve the minimum speed on the first attempt might then be tempted to ride at excessive speeds during their second attempt. There was also a concern that introducing minimum speed manoeuvres might be misconstrued by candidates and provide them with a poor road safety message. DSA’s view on these issues is that candidates who have received sufficient training before the off-road test should be comfortable with the speed-related manoeuvres and that ATBs will be aware of how best to prepare a rider for testing. DSA also points out that in some on-road environments (e.g. busy traffic or rural roads), it may be necessary to ride at similar speeds within a similar space. The potential problem with excessive speeds on second attempts is perhaps less serious than ATBs feared, since candidates are free to ask, and be told, the speed they reached on the first attempt.
There were also performance-related issues on the off-road circuit, specifically:

- Some sequences of manoeuvres were considered complicated. A typical example was the 30kph circuit ride, followed by the 50kph avoidance manoeuvre and the controlled stop. There was a concern that candidates might become fixated on certain elements of one manoeuvre (e.g. attaining the minimum speed) and thus forget what other manoeuvres follow. Whilst this may be a concern for some candidates, the instructions provided by the examiner between each series of manoeuvres should minimise any confusion.

- Several manoeuvres were alleged to be not well-suited to some motorcycles. For example, larger motorcycles (500+ cc) lack the manoeuvrability of smaller motorcycles (e.g. 125cc) on tight manoeuvres requiring slow control, such as the slalom and figure of eight. Conversely, smaller motorcycles were reported to not suit the 30kph circuit ride and 50kph manoeuvres as they do not generally have appropriate power and gearing to reach and maintain these speeds in the short distance allowed. Training providers therefore commented that the design of the off-road circuit was not fit for the purpose of testing a full range of motorcycles. This is somewhat contrary to several years of extensive trialling by DSA with a range of motorcycles, including those used commonly in the training industry.

The reality of the assumptions made by ATBs during the interviews was tested with a series of mock 2009 off-road assessments. These findings are reported in Section 4.2. Some of the items raised in this section have since been addressed by DSA prior to publication of this report and details can be found in section 7.

### 4.2 Off-road mock tests

A total of 50 mock tests were conducted with 50 different participants using the test procedure for the off-road component of the 2009 Motorcycle Test. The findings from these mock tests are presented in this section.

The sample size was relatively small for testing statistical significance given the large number of potential variables associated with performance on the off-road test. It was originally envisaged that the sample would be expanded to 200 participants if the first 50 tests produced a mixture of passes and fails. However, the logistical complications associated with the fieldwork for this study prevented the sample from being increased within the available time and budget for the study. Therefore, many of the quantitative findings should be considered indicative rather than statistically reliable.

#### 4.2.1 Participant characteristics and experience

Participants ranged in age from 17 years to 60 years. The mean age of mock test participants was 31 years and the sample comprised 38 males (with a mean age of 31 years) and 12 females (with a mean age of 33 years).

**Prior riding and driving experience**

Half (50%) of all participants had ridden a motorcycle before starting their current training programme (55% of males and 33% of females had done so) - Table 4.1. These riders all currently owned a motorcycle, 80% of which had an engine capacity of 125cc or less, that of the remainder being between 125cc and 500cc. Participants with their own motorcycles had travelled between 39 and 30,000 miles outside of their current training course. Sixty-three per cent had travelled 1,000 miles or fewer on their own machine and 52% had ridden this machine for less than 12 months.
Table 4.1 shows that the majority of participants (78%) were current holders of a Category B licence (for motor vehicles). Overall, 72% of participants were training for a full Category A licence; the remainder were training for either a Category A1 licence or a 2 year restricted Category A licence.

**Table 4.1: Percentage of respondents with prior riding/driving experience and percentage training for Category A or A1 licences**

<table>
<thead>
<tr>
<th>Experience</th>
<th>Percentage of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Prior riding experience</td>
<td>55</td>
</tr>
<tr>
<td>Existing Cat. B licence holder</td>
<td>76</td>
</tr>
<tr>
<td>Training for Cat. A licence</td>
<td>71</td>
</tr>
<tr>
<td>Training for Cat. A1 (or age-restricted Cat. A) licence</td>
<td>29</td>
</tr>
<tr>
<td><strong>BASE NUMBERS</strong></td>
<td>38</td>
</tr>
</tbody>
</table>

**Distribution of tests across MPTCs**

More mock tests were carried out at Cardington than Gloucester, Ipswich or Shrewsbury as it was the most convenient for the DSA examiners (Table 4.2). The fewest were conducted at Gloucester where it was most difficult for the ATBs in the area to accommodate the mock tests within their training schedules. Tests on large Category A motorcycles and smaller Category A1 motorcycles took place at each location. Mock tests were not conducted in wet conditions at Cardington and Gloucester (but were at Ipswich and Shrewsbury). Overall, 78% of tests took place on dry tracks.

**Table 4.2: Distribution of 2009 mock tests by MPTC location**

<table>
<thead>
<tr>
<th>Number of 2009 mock tests on a:</th>
<th>MPTC location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cardington</td>
</tr>
<tr>
<td>500cc motorcycle or larger</td>
<td>15</td>
</tr>
<tr>
<td>125cc motorcycle or smaller</td>
<td>3</td>
</tr>
<tr>
<td>on a wet track</td>
<td>-</td>
</tr>
<tr>
<td>on a dry track</td>
<td>18</td>
</tr>
<tr>
<td>Total tests at each location</td>
<td>18</td>
</tr>
</tbody>
</table>

The percentage of male participants was similar at each MPTC, at between 71-80%.
4.2.2 Location and duration of training

On average, participants were coming to the mock tests after 16 hours of training for their 2007 test. Females reported more prior training than males (20 and 15 hours, respectively; Table 4.3). In each case, the amount of training already received for the 2007 Motorcycle Test was reported by the trainer to be enough to provide a participant who was ‘test ready’ for the 2007 test.

The four ways in which participants prepared for the off-road manoeuvres of the 2009 mock test were by taking:

- an additional 15-minutes of practice on a DSA MPTC site prior to taking the 2009 test (reported by 78% of participants);
- additional training or practice for the 2009 test whilst training for the 2007 test (undertaken by 44% of participants), with slightly fewer training specifically at CBT and other (non-DSA) off-road areas (38%);
- additional training specifically at a DSA MPTC site (reported by 24% of the sample); or,
- no training or practice at all for the off-road test (for 22% of the sample).

The percentage of males and females who reported these different training options was typically quite similar, though this similarity between males and females, as well as the variations that did occur between them, may simply be a result of the small sample size.

Table 4.3 shows the hours of training reported by participants. Again, no firm conclusions can be drawn about male-female differences because of the small sample sizes. The two females who trained at DSA MPTCs were learning with a particular ATB that was providing more hours of additional 2009 training than other ATBs in the study.

Participants who said they had received additional training specifically for the mock 2009 off-road test reported receiving an average of three hours. The amount typically ranged from a further 10 minutes to an extra six hours. It was more common for additional training to be provided at non-DSA off-road sites, such as those used by ATBs for CBT; those who trained for the 2009 mock test on non-DSA off-road sites accumulated an average of 1.6 hours, whereas participants who had the opportunity to train on a DSA MMA averaged 2.3 hours (Table 4.3).

Overall, very small percentages of participants reported the amount and location of their additional training experience for the 2009 mock test. These figures are therefore only an approximation of the scale of the training demands for the new off-road manoeuvres.

<table>
<thead>
<tr>
<th>Training provision</th>
<th>Male (N=38)</th>
<th>Female (N=12)</th>
<th>Total (N=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hours of training for 2007 test (mean)</td>
<td>14.6</td>
<td>20.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Total hours of additional training for the 2009 mock test (mean)</td>
<td>2.1 (N=16)</td>
<td>6.2 (N=4)</td>
<td>2.9 (N=20)</td>
</tr>
<tr>
<td>Total hours of additional training on other off-road sites (mean)</td>
<td>1.5 (N=9)</td>
<td>1.8 (N=3)</td>
<td>1.6 (N=12)</td>
</tr>
<tr>
<td>Total hours of additional training on a DSA MPTC site (mean)</td>
<td>0.7 (N=7)</td>
<td>8.0 (N=2)</td>
<td>2.3 (N=9)</td>
</tr>
</tbody>
</table>
### 4.2.3 Type of training

The percentages of participants who reported training for each of the 2009 off-road test manoeuvres, either at a DSA MPTC or at another off-road site, are shown in Table 4.4. Even though all participants who took additional training or practice for the mock test reported time at a DSA MPTC (for most it was a 15 minute practice session prior to their mock test), more than half did not report practising any manoeuvres\(^9\). This cannot be a true reflection, as those who took a 15 minute practise session were all observed to have at least covered one manoeuvre. Nevertheless, 38% of female riders reported practising all the test manoeuvres on a MMA, whilst the most commonly practised manoeuvre amongst males was the avoidance manoeuvre at 50kph (practised by 23%). **The findings suggest a slight trend (amongst male riders) to focus on the higher speed manoeuvres when practising on the DSA site.**

Conversely, on other, non-DSA off-road sites the 50kph avoidance manoeuvre was one of the least commonly practised manoeuvres (practised by 63% of males and 33% of females). **The findings also indicated that the 30kph and 50kph manoeuvres were those which participants would most like to have practised more** (Table 4.4). The data appear to support the reported interview findings (Section 4.1), where instructors stated that their own off-road sites were not well-suited to the demands of the new higher speed test manoeuvres.

#### Table 4.4: Percentage of participants practising off-road manoeuvres at DSA and non-DSA sites, and the percentage who would have liked more practice

<table>
<thead>
<tr>
<th>Off-road manoeuvres</th>
<th>% practising off-road manoeuvres at:</th>
<th>% wanting more practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A DSA MPTC</td>
<td>Another off-road site</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Taking the motorcycle on and off the stand/wheeling the machine</td>
<td>13</td>
<td>38</td>
</tr>
<tr>
<td>Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>Slow riding</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>Controlled stop</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>Cornering at 30kph/19mph</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>Avoidance manoeuvre at 50kph/31mph</td>
<td>23</td>
<td>38</td>
</tr>
<tr>
<td>Emergency brake from 50kph/31mph</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td><strong>BASE</strong></td>
<td>31</td>
<td>8</td>
</tr>
</tbody>
</table>

\(^9\) It is possible that the low response rate for this, and other questions that related to the specific manoeuvres practised during training, might have been a product of participants not having a detailed knowledge and understanding of the new test manoeuvres. Participants were provided with a diagram of the off-road circuit as a reference point when completing the questionnaire.
4.2.4 Perceived difficulty of training

The avoidance manoeuvre at 50kph was the most difficult for participants to learn and for ATBs to teach. It received an average difficulty rating (on a 5-point scale of increasing difficulty, where 1=very easy and 5=very difficult) of 3.3 for learning and 3.1 for teaching (Figure 4.3). Participants commented that this manoeuvre was difficult to learn when there was insufficient space at off-road training sites to practice at the correct speed. This was also the most common reason why it was said to be the most challenging manoeuvre for ATBs to teach. More specifically, participants complained that it was hard to maintain adequate speed whilst cornering and to build up to 50kph for the manoeuvre. It was suggested by ATBs that this was because some participants lacked confidence to approach the higher speed manoeuvres at the necessary speed. Conversely, there were also participants who simply rode too fast for the conditions and had to be ‘calmed down’ during training. This behaviour was partly claimed to be symptomatic of the 2009 test requirement for motorcyclists to demonstrate relatively high speeds on manoeuvres; a requirement that received criticism from some ATBs for being an inappropriate road safety message. The counter argument here is that licensure which is contingent on being able to handle a motorcycle at real road speeds under demanding conditions demonstrates a proactive approach to road safety and one that may ultimately improve safety in the longer term. Assessing the merits of these arguments was outside the scope of this study.

The difficulty rating associated with learning the other manoeuvres for the off-road test ranged from an average of 1.5 for the manual handling of the machine to 2.8 for the slow riding exercise. There was generally close agreement from participants and ATBs on which manoeuvres were difficult to learn and teach. Exceptions were slow manoeuvres and riding, which were harder for participants to learn than for instructors to teach (comments suggested that this was largely related to participants having not yet mastered their coordination and balance). Conversely, training for the 30kph cornering and 50kph emergency stop was rated by instructors as being almost as difficult to train for as the avoidance manoeuvre, mostly because they lacked facilities (large off-road sites) and speed-measuring equipment to provide the appropriate training. One positive outcome that may follow is that trainers might be encouraged to offer participants even more on-road riding during their course to provide experience of a variety of corners under varying speeds and conditions.
4.2.5 Perceived value of the 2009 off-road test manoeuvres

When participants were asked to specify how effectively their training prepared them for the mock 2009 off-road test, there was little variation in the average scores they gave. On a 5-point scale of increasing effectiveness (where 1=not at all effective and 5=very effective), all of the 2009 test manoeuvres were given an average rating of between 4 and 4.2. Training given for the mock tests was generally perceived as very effective preparation (with an overall effectiveness rating of 4.2). The few participants who felt that some aspects of their training were not effective reported that this was due to the use of small off-road sites with insufficient space to practice all the manoeuvres and learn how to build up and recognise the appropriate speed. Thus, the improvements that were recommended by participants to make their training more effective were larger off-road training areas and more time for practicing.

Participants were also asked to rate the ‘real-world’ usefulness of the manoeuvres for on-road riding (Figure 4.4). On average, every 2009 off-road test manoeuvre was rated as ‘useful’ (with an average score of 4.2 for all manoeuvres on a 5-point scale of increasing usefulness where 1=not at all useful and 5=very useful). Slow manoeuvring and manual handling of the machine received the lowest average ratings for usefulness (3.8 and 3.9, respectively), perhaps because they are already covered to a great extent during CBT. In contrast, the ‘new’ manoeuvres of the 2009 test were rated as more useful, on average. In particular, the speed-dependent controlled stop and emergency braking manoeuvres were reported to be very useful, with the highest average ratings (4.5 and 4.6, respectively). As a measure of the potential impact of the 2009 Motorcycle Test, participants in the study also reported that their general riding skills had, overall, improved quite substantially as a result of taking the mock 2009 off-road test and any extra training they did for it (on an increasing scale of improvement from 1 to 5,
participants reported an average score of 4). Participants did not provide any further explanation for the ratings they gave.

![Bar chart showing perceived usefulness of the new off-road test manoeuvres for on-road riding, where 1=not at all useful and 5=very useful](image)

**Figure 4.4: Perceived usefulness of the new off-road test manoeuvres for on-road riding, where 1=not at all useful and 5=very useful**

To help gauge the relative effectiveness of different training provisions, participants were asked to report for which manoeuvres they felt they still needed to improve their skills prior to taking the mock test\(^\text{10}\). Participants tended not to feel a need to improve their individual abilities by very much—on a 5-point scale of improvement, where 1=no improvement needed and 5=a lot of improvement needed, they averaged a score of 2.3 (Figure 4.5). Comparison of the average scores for separate manoeuvres revealed that the avoidance manoeuvre was where participants were most likely to still feel a need for improvement (with an average rating of 3). This may have been related to the difficulty associated with both learning and teaching this manoeuvre, which itself was largely a product of ATBs having insufficient equipment and facilities for training the avoidance manoeuvre off-road. The same could be said of other speed-dependent manoeuvres (emergency braking and the 30kph cornering) which were also associated with an above average need for improvement (scores of 2.4 for each). The relatively strong need to improve slow manoeuvring further was reflected in some of the comments received from participants and their instructors, with several citing an ongoing awareness of the need to improve such skills, particularly balance and coordination.

\(^{10}\) It was not feasible to measure the need for improvement before and after training as many of the manoeuvres were new to participants and they had no experience upon which to base their initial rating. The different training provisions and rates of learning also made it difficult to compare ratings between participants. However, the average scores provided a good indication of how participants perceived and responded to the each manoeuvre relative to other manoeuvres.
4.2.6 ATB perspectives on training for the 2009 test

The percentages of participants who were reported by their instructors to have ‘struggled’ to complete specific off-road manoeuvres are shown in Figure 4.6. **It was most common for participants to struggle to demonstrate competently the avoidance manoeuvre at 50kph** (26% of the sample were thought to have difficulty), followed by the 30kph cornering exercise (where 16% struggled). The 30kph circuit ride preceded the 50kph avoidance manoeuvre during the off-road test and instructors explained how the difficulties faced by participants related to both manoeuvres. One instructor thought it extraordinary to be coaching riders to accelerate towards a hazard:

"The nature of the exercise means you need to teach people to ignore their natural instinct to slow down when approaching a potentially dangerous situation."

Whilst it is true that riders should ideally be alert so that they do not encounter a near hazard at such speeds, there are many instances where riders will meet with an unexpected obstacle—this will be more likely amongst inexperienced riders. The avoidance manoeuvre is intended to help to equip new riders with the knowledge and skills to avoid such hazards on the road.

This challenge of teaching the avoidance manoeuvre was reported by some ATBs to be compounded for participants who found it difficult to use counter steering (a method of effectively controlling the direction of a machine whilst negotiating hazards such as bends and corners) to their advantage during the avoidance manoeuvre. There were further complications with selecting appropriate gears for the manoeuvres and with the level of confidence required to reach the minimum speeds.

Such comments underline the importance of a training plan that provides trainees with sufficient experience of negotiating corners and obstacles that are encountered in daily riding. DSA promotes corner negotiation and machine handling as core skills for safe riding. If trainees are finding these manoeuvres difficult off-road, then further training to consolidate their skills would be an appropriate step before coming for test.

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**Figure 4.5**: Perceived need to improve riding ability on the off-road test manoeuvres, where 1=no improvement needed and 5=a lot of improvement needed
Figure 4.6: Percentage of participants who were reported by their instructors to have ‘struggled’ to complete specific off-road manoeuvres

4.2.7 Training techniques for the cornering and avoidance manoeuvres

Table 4.5 describes the additional or enhanced measures taken by instructors in this study to prepare participants for the 30kph cornering manoeuvre. Feedback from participating instructors suggested that, in order to train participants for the 30kph cornering manoeuvre, it would be appropriate to reinforce training on:

- steering techniques and negotiating bends and changes of direction
- good forward vision in the direction of intended travel
- body positioning and balance on the motorcycle
- getting up to, and maintaining, the necessary test speed (with attention paid to throttle control, acceleration and gearing)
- selecting and maintaining appropriate lines through corners

Not all instructors in the study were able to offer the training that they believed was necessary because they neither had access to a DSA Multipurpose Test Centre nor to another off-road site of comparable size. Comments received from instructors suggested that it was only possible to provide trainees with a comprehensive understanding of the skills necessary for the cornering manoeuvre if there was off-road space available to safely allow sustained practice. In a few instances, instructors tried to train using rural roads and roundabouts with a similar profile to the 2009 test corner.
Table 4.5: Advice and/or specific training for the 30kph cornering manoeuvre given by participating ATBs, and location of delivery

<table>
<thead>
<tr>
<th>Advice and/or specific training</th>
<th>Location of delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear advice on body positioning, counter steering, looking ahead through the corner in the direction of travel, and throttle control whilst cornering</td>
<td>All locations</td>
</tr>
<tr>
<td>At CBT site, participants began by practising accelerating out of a small arc/half circle of cones at slow speed</td>
<td>Other off-road sites</td>
</tr>
<tr>
<td>At DSA site, began by walking participants through the corner and subsequent manoeuvres, pointing out where to look and how to hold the correct line</td>
<td>DSA centre</td>
</tr>
<tr>
<td>Discussed appropriate gearing for cornering and where to look</td>
<td>DSA centre</td>
</tr>
<tr>
<td>Explained skills and techniques required. Asked questions to establish prior knowledge. Used gradual build up of pace by participant in free riding exercises to demonstrate skills needed. Allowed practice in gradual steps before carrying out the full exercise. Having identified any faults, used Q&amp;A to help applicant self-analyse and gave appropriate remedial tuition on cornering and balancing techniques.</td>
<td>DSA centre</td>
</tr>
<tr>
<td>Explained the course to students and compared it with cornering out on the road</td>
<td>DSA centre</td>
</tr>
<tr>
<td>Built participant confidence by riding on faster, flowing roads such as rural A roads and dual carriageways</td>
<td>On-road</td>
</tr>
<tr>
<td>Used a large roundabout where traffic is normally fast flowing</td>
<td>On-road</td>
</tr>
</tbody>
</table>

Table 4.6 describes how instructors in this study prepared participants for the 50kph avoidance manoeuvre. Several stated that they offered similar instruction to that provided for the cornering manoeuvre. However, the avoidance manoeuvre was reported to require more aggressive counter steering and more focused vision. As before, a large off-road site or access to a DSA MPTC was considered essential for training purposes; smaller sites or public roads were deemed inappropriate practice sites because they either had insufficient space to build the required speed or they presented unacceptable safety risks. Moreover, instructors believed that to train successfully for the avoidance manoeuvre it had to be preceded by the 30kph cornering manoeuvre, as it is during the 2009 off-road test. This was only possible on an off-road site of similar dimensions to the official DSA MMA.
Table 4.6: Advice and/or specific training for the 50kph avoidance manoeuvre given by participating ATBs, and location of delivery

<table>
<thead>
<tr>
<th>Advice and/or specific training</th>
<th>Location of delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taught participants a more aggressive counter steering technique than used for the cornering</td>
<td>DSA centre</td>
</tr>
<tr>
<td>manoeuvre and encouraged them to look in the direction of travel during the avoidance</td>
<td></td>
</tr>
<tr>
<td>manoeuvre</td>
<td></td>
</tr>
<tr>
<td>Explained skills and techniques required. Gradually built pace to demonstrate skills needed.</td>
<td>DSA centre</td>
</tr>
<tr>
<td>An incremental approach was used and, once the initial skill set for the avoidance</td>
<td></td>
</tr>
<tr>
<td>manoeuvre was established, it was linked with the preceding cornering manoeuvre</td>
<td></td>
</tr>
<tr>
<td>Explained the avoidance manoeuvre to participants prior to the mock 2009 test. Practised with</td>
<td>DSA centre</td>
</tr>
<tr>
<td>participants on the DSA site before testing. In future, will train for this manoeuvre on their</td>
<td></td>
</tr>
<tr>
<td>own off-road site</td>
<td></td>
</tr>
<tr>
<td>Initially started teaching avoidance manoeuvre at CBT site at slow speeds in a straight line.</td>
<td>Other off-road</td>
</tr>
<tr>
<td>Then added a small arc/corner and had participants accelerate out of it and into the</td>
<td>DSA centre</td>
</tr>
<tr>
<td>avoidance manoeuvre. At DSA site, slowly started to implement what had been taught</td>
<td></td>
</tr>
<tr>
<td>beforehand and gradually built confidence, working with different gear ratios</td>
<td>Other off-road sites</td>
</tr>
<tr>
<td>Alternative steering techniques (i.e. counter steering) taught off-road at a slower speed</td>
<td>Other off-road sites</td>
</tr>
<tr>
<td>and then applied to on-road situations where there was space for higher speeds to be used</td>
<td>on-road</td>
</tr>
<tr>
<td>(e.g. bends on rural roads and planning for potential escape routes)</td>
<td></td>
</tr>
<tr>
<td>Set out cones to copy off-road course. Began slowly and increased speed with confidence</td>
<td>Other off-road sites</td>
</tr>
<tr>
<td>Discussed and practised counter steering but at slower speeds and in a straight line.</td>
<td>Other off-road sites</td>
</tr>
</tbody>
</table>

From an instructor’s perspective, the 2009 off-road test does not require a raft of new skills; it rather relies on all the skills required for the outgoing (2007) Motorcycle Test—just intensified. The exception may be counter steering. Whether counter steering is already taught is a moot point; it is essential for cornering at reasonable speed but riders are not necessarily aware that they are ‘counter steering’ given that the skill typically develops instinctively. Participating instructors were not all in favour of applicants being taught overt counter steering techniques. There is one argument that if counter steering remains an unconscious skill amongst new riders, it is less likely to be used inappropriately. However, to change the direction of a motorcycle in quick succession (as for the 2009 avoidance manoeuvre) was claimed by some ATBs to requires greater and more obvious counter steering inputs and several therefore chose to explicitly teach counter steering to participating riders (where perhaps they would not have done so for the 2007 test).

4.2.8 Passing the test

The percentage of participants who passed the 2009 mock off-road test was, at 64%, almost identical to the percentage passing the outgoing (2007) practical motorcycle test nationally (Table 4.7). Of the total sample, 70% of participating riders allowed the outcome of their subsequent 2007 motorcycle test to be used for this study—60% of these people passed the 2007 test. The percentage of males in the sample passing the 2009 mock off-road test was greater than for females (68% and
50%, respectively), and the same was true for those who took the 2007 Motorcycle Test afterwards (62% and 56%, respectively). However, the small sample sizes mean that such male-female differences will not necessarily be found in the general population of test candidates.

**Table 4.7: Percentage of participants passing the 2009 mock off-road test and the 2007 motorcycle test (if taken)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Percentage passing (and BASE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (BASE)</td>
</tr>
<tr>
<td>2009 mock off-road test</td>
<td>68 (38)</td>
</tr>
<tr>
<td>2007 motorcycle test</td>
<td>62 (26)</td>
</tr>
</tbody>
</table>

The 2009 Motorcycle Test, when introduced, will require candidates to complete both the off-road manoeuvres and an on-road assessment, albeit in a modular format rather than as one complete assessment. The results of the 2009 off-road mock test and the subsequent 2007 Motorcycle Test (where available) have therefore been combined in Table 4.8. **Forty-three per cent passed both the 2009 off-road and the 2007 on-road tests, which is more than 20 percentage points lower than the national pass rate for the outgoing 2007 test.** Almost a fifth (17%) passed the outgoing Motorcycle Test but failed to pass the 2009 mock off-road test, which suggests that under the outgoing regime they would be considered competent, but under the 2009 test procedure they would not. Of course, the amount of training taken between the 2009 mock test and the 2007 test could not be strictly controlled and so candidates’ preparedness could have changed in this time. The pass rate alone does not account for the reasons for failing any of the tests and these aspects are therefore explored in the following subsections.

**Table 4.8: Percentage and number passing and/or failing both the 2009 mock off-road test and the 2007 Motorcycle Test (if taken) (BASE=35)**

<table>
<thead>
<tr>
<th>Failed 2007 test</th>
<th>Passed 2007 test</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed 2009 off-road test</td>
<td>20 (N=7)</td>
<td>17 (N=6)</td>
</tr>
<tr>
<td>Passed 2009 off-road test</td>
<td>20 (N=7)</td>
<td>43 (N=15)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40 (N=14)</strong></td>
<td><strong>60 (N=21)</strong></td>
</tr>
</tbody>
</table>

**Reasons for failing the 2009 mock test and passing the 2007 test**

Six participants failed the 2009 mock off-road test but subsequently passed the outgoing (2007) Motorcycle Test, so under the proposed 2009 licensing system they would not have achieved full licensure. Four of these participants failed the 2009 mock test on items that were not assessed in the 2007 test (three failed to achieve the required

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11 Test reliability, and particularly inconsistency in an applicant’s riding performance, would also play a part here. For example, suppose all applicants were the same as each other, and had a probability of 0.63 of passing the new off-road element, giving the observed pass rate of 63%. Then, ignoring practice effects, the probability of passing two such tests in succession would be around 0.63 x 0.63 = 0.4, giving a combined pass rate of 40%. In other words, a reduced pass rate is to be expected for the new combined test even if the on and off-road elements tested exactly the same skills to the same standards. The increased number of items being assessed gives applicants with non-zero error rates an increased probability of making a serious or dangerous fault.
50kph and one committed a serious fault on the avoidance manoeuvre). Of the remaining two participants, one failed for a dangerous fault on the U-turn manoeuvre (as well as a serious fault on the slalom) whilst the other failed for a serious control fault during the emergency braking exercise. Neither repeated comparable faults during their 2007 tests, although a minor fault did occur on the U-turn for the participant who failed this exercise on the off-road test.

Fault analysis from these six participants does suggest that the forthcoming 2009 Motorcycle Test may introduce elements that might be beyond the competence of some candidates who are able to pass the outgoing motorcycle test. The characteristics of this group of six participants were otherwise not obviously different from the rest of the sample, although none was part of the small group (of 12 participants) who took practice at a DSA MPTC.

**Reasons for passing the 2009 mock test and failing the 2007 test**

Seven participants passed the 2009 mock off-road test but then went on to fail the 2007 on-road test. In all but two instances, the failures were attributed to items that would continue to be assessed on-road in the 2009 Motorcycle Test. The remaining two participants demonstrated serious U-turn faults during their 2007 Motorcycle Test which did not manifest during their earlier 2009 mock off-road test. The circumstances in which the U-turn faults occurred were not recorded. Speculatively, the difference in results could be attributable to variations in performance within participants, and it could be associated with the conditions under which the U-turns were conducted on-road. (It should be borne in mind also that participants will have a non-zero error rate in each type of manoeuvre, which means that full consistency between the outcomes of the two components of the test would not be achieved even if both components were exactly the same as each other. Participants may pass the 2009 off-road element and fail the 2007 test simply because they occasionally make an error).

Lack of standardisation for testing manoeuvres on-road was one of the complaints voiced by ATBs in this study—and one of the expected benefits of the 2009 test is the standardised conditions under which manoeuvres are performed. Nevertheless, **the data from this sample do not indicate that candidates who are unable to pass the outgoing test will have a greater chance of success with the 2009 Motorcycle Test.** If several participants had failed the 2007 test on manoeuvres that are part of the 2009 off-road test (which they passed), this might have indicated that the conditions of assessment for the 2009 off road part of the test (e.g. the traffic-free environment) were making it easier to avoid faults. Instead, the findings actually showed that most participants who passed the 2009 mock off-road test and then went on to fail the 2007 on-road test had made faults during the 2007 test on manoeuvres that would continue to be assessed on-road for the 2009 test.

**4.2.9 Factors associated with passing the 2009 off-road test**

Factors potentially associated with participants passing the 2009 off-road test were entered into a binary logistic regression and the resulting statistical significance of each factor is provided in the first column of Table 4.9. One factor—the weather during each mock test—was subsequently removed from all regression analyses as too few tests took place in wet weather at each MPTC to produce a valid regression model. In addition, one participant was removed from the analysis after reporting more than 60 hours of prior training for the 2007 Motorcycle Test. This was an outlying value that skewed the statistical analyses.

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12 The pass/fail outcome is a binary variable. In order to investigate which factors were associated with passing or failing it was necessary to model the test outcome using logistic regression. In this analysis, the factors investigated were a collection of continuous, discrete and dichotomous measures.
The findings showed that taking a 15 minute practice prior to the 2009 mock off-road test was the only factor found to be associated significantly \((p<0.05)\) with passing or failing the off-road test.

As discussed earlier, it was originally proposed that this study would test up to 200 participants, with the first 50 allowing an initial exploration of the pass rate and other factors. In the event, difficulties in sample recruitment coupled with limitations of time and budget meant that a sample size of 50 was the most that could be achieved. Thus the statistical power of the study (its ability to detect effects of interest) was lower than had originally been intended and very few effects were detected at the conventional levels of statistical significance. In Table 4.9, the fifteen minute practice session alone was significant at the conventional \(p = 0.05\) level.

However, for policy purposes it may be useful to consider effects that are less certain. The \(p = 0.05\) level implies 95% confidence that a real effect has been detected. If we are willing to accept only 80% confidence (the \(p = 0.20\) level) then statistical power improves and two further factors in Table 4.9 become significant: total hours of 2007 training\(^{13}\) and receiving additional 2009 training. The relationship between total hours of training for the 2009 off-road test and the likelihood of passing it becomes significant at a 75% level of confidence (the \(p = 0.25\) level), as does riding a motorcycle before receiving training. In summary, at conventional scientific levels of certainty, only the 15 minute practice session was shown to relate to the pass rate. But the study also gives a fairly strong indication that other variables—receiving additional 2009 training, the amount of 2009 training received, and riding a motorcycle before training—are all positively associated with passing the new off-road test. These findings do support one of the objectives of the off-road test, which is to increase the overall level of riding experience gained before licensure. Candidates who choose to seek more pre-test training may be more likely therefore to pass the 2009 Motorcycle Test and also more likely to be safer riders post-test, given their increased experience over candidates with fewer hours of training.

\(^{13}\) The number of hours of 2007 training was negatively—rather than positively—associated with passing the 2009 off-road test (i.e. the more hours of 2007 training that were taken, the lower the pass rate). This relationship is discussed later in this section in connection with Table 4.12.
Table 4.9: Significance values (from logistic regression) for factors associated with passing the 2009 off-road test

<table>
<thead>
<tr>
<th>Factor associated with passing</th>
<th>Significance values from logistic regression (N=49)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Took a 15 minute practice prior to the off-road test</td>
<td>.006**</td>
</tr>
<tr>
<td>Received fewer hours of training for the 2007 test</td>
<td>.155</td>
</tr>
<tr>
<td>Received additional training for the 2009 test</td>
<td>.167</td>
</tr>
<tr>
<td>Received a greater number of hours of training for the 2009 test</td>
<td>.213</td>
</tr>
<tr>
<td>Rode a motorcycle prior to training</td>
<td>.215</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>.351</td>
</tr>
<tr>
<td>Trained/practised for the 2009 test at a DSA test centre</td>
<td>.489</td>
</tr>
<tr>
<td>Participant age*** (older)</td>
<td>.718</td>
</tr>
<tr>
<td>Confident of passing the 2009 mock test</td>
<td>.769</td>
</tr>
<tr>
<td>Motorcycle capacity (500cc or more)</td>
<td>.842</td>
</tr>
<tr>
<td>2009 test taken using a right-hand circuit</td>
<td>.965</td>
</tr>
</tbody>
</table>

*These values are the probability of the observed association with the pass rate having occurred by chance

**Included as a significant variable in the equation model for the logistic regression (p<.05)

**Participant age was initially included in the logistic regression model alongside the other factors in this table but was then later removed as there were two missing values which subsequently reduced the data set when analysing the other factors. Significance values are provided from the initial analysis to demonstrate that age had very little effect on passing the 2009 off-road test.

4.2.10 Participant differences based on passing or failing the 2009 off-road test

Almost all participants (91%) who passed the 2009 mock off-road test reported taking a 15 minute practice session, compared with 53% of those who failed the mock test. Taking a 15 minute practice represented the greatest difference (38 percentage points) between participants passing and failing the 2009 test (Table 4.10). It supports the earlier regression analysis that indicated a 15 minute practice session was the only factor significantly associated with passing the 2009 off-road test.
Table 4.10: Participants reporting specific factors as a percentage of all participants who passed and failed the 2009 off-road mock test

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage of those who passed (N=32) reporting each factor</th>
<th>Percentage of those who failed (N=17) reporting each factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 minute practice session taken</td>
<td>91</td>
<td>53</td>
</tr>
<tr>
<td>Additional training taken for the 2009 test</td>
<td>47</td>
<td>41</td>
</tr>
<tr>
<td>Rode a motorcycle prior to training</td>
<td>56</td>
<td>41</td>
</tr>
<tr>
<td>Participant sex (male)</td>
<td>81</td>
<td>65</td>
</tr>
<tr>
<td>Trained/practiced for 2009 test at a DSA test centre</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>Motorcycle capacity (500cc or more)</td>
<td>75</td>
<td>65</td>
</tr>
<tr>
<td>2009 test taken using a right-hand circuit</td>
<td>56</td>
<td>59</td>
</tr>
<tr>
<td>Weather conditions (dry)</td>
<td>69</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.11 shows the pass rates for people reporting each factor. Chi square analyses on the factors listed in Table 4.11 demonstrated that taking or not taking a 15 minute practice produced significant variation in the percentage of respondents who passed (76% of those who took a 15 minute practice passed the off-road test compared with 27% of those who did not).

The other findings in Table 4.11 indicate other potentially influential factors when training for and taking the 2009 off-road test, even if they did not produce significantly different pass rates in this small study. For example, taking additional training specifically for the 2009 test, prior riding experience, and training/practising for the 2009 test at a DSA test centre were all associated with a higher percentage of participants passing the 2009 off-road test than if such experience was not reported. These differences were not statistically significant and cannot be reliably generalised to the population of test candidates. However, they suggest one goal of the 2009 test may be achievable: riders who train for longer appear to be more likely to pass the new test – in which case its introductions seems likely to induce additional pre-test training. There may an associated benefit for road safety by generating newly licensed riders with greater on-road experience.

Pass rates for the off-road test differed little for factors where no difference was expected, such as testing on a left or right-hand circuit, (left circuit, 67% passing; right circuit, 64% passing). A higher percentage passed on motorcycles with a capacity of 500cc or greater (69% passed) than with a capacity of 125cc or less (57% passed). This difference was not statistically significant but was consistent with the concerns of some ATBs regarding the difficulty of passing the 2009 off-road test on a smaller, lower-powered motorcycle (due to the minimum speeds required over a short distance).

It was no doubt an anomaly that all those participating in wet conditions passed the 2009 off-road test. There were few instances of wet weather testing (10 participants) and more tests would need to be conducted in wet weather to provide a conclusive
result. However, the data provided no indication that a wet surface adversely affected the performance of participants in this study. MMA’s are designed to provide sufficient grip in both wet and dry conditions.

**Table 4.11: Percentage who passed the 2009 off-road mock test for individual factors**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Response</th>
<th>% of number giving this response who passed</th>
<th>Number giving response</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 minute practice session</td>
<td>Yes</td>
<td>76</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>27</td>
<td>11</td>
</tr>
<tr>
<td>Additional training for 2009 test</td>
<td>Yes</td>
<td>68</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>63</td>
<td>27</td>
</tr>
<tr>
<td>Motorcycle riding experience prior to training</td>
<td>Yes</td>
<td>72</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>58</td>
<td>24</td>
</tr>
<tr>
<td>Trained/practiced for 2009 test at a DSA test centre</td>
<td>Yes</td>
<td>83</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>60</td>
<td>37</td>
</tr>
<tr>
<td>Participant sex</td>
<td>Male</td>
<td>70</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>50</td>
<td>12</td>
</tr>
<tr>
<td>Motorcycle capacity</td>
<td>&lt;125cc</td>
<td>57</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>&gt;500cc</td>
<td>69</td>
<td>35</td>
</tr>
<tr>
<td>2009 test taken using a left or right-hand circuit</td>
<td>Left circuit</td>
<td>67</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Right circuit</td>
<td>54</td>
<td>28</td>
</tr>
<tr>
<td>Weather conditions</td>
<td>Dry</td>
<td>69</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Wet</td>
<td>100</td>
<td>10</td>
</tr>
</tbody>
</table>

The hours of training taken (both for the 2007 test and additionally for the 2009 mock test) were approaching significance in a regression analysis of pass rates for the original sample. In a one-way analysis of variance, mean hours of training for the 2007 test were significantly lower for participants who passed the 2009 mock test than for participants who failed the 2009 mock test (13 hours compared with 18 hours, respectively; see Table 4.12). Although this might appear to suggest that fewer hours of general training improve one’s chances of passing the 2009 off-road test, the relationship here is not believed to be causal. It is more likely to be a product of participants taking, and being given by their instructors, an amount of training that was deemed necessary for them to ride competently during their (2007) motorcycle test. When investigating hours of training and pass rates for the practical driving test, Wells,
et al., (2007) also found these two factors to be inversely related. It has been hypothesised that trainees who find it more difficult to reach the required competence will take more training, and are typically less likely to pass than trainees who become competent quickly and with fewer hours of tuition.

There was no significant difference in the average hours of training for the off-road test taken by those passing the 2009 test (1.7 hours) and those failing the 2009 test (0.3 hours)\(^\text{14}\). It is notable that very little additional training was given, on average (Table 4.12). However, there was a positive relationship between hours of 2009 training and passing the 2009 off-road test. This may indicate that the off-road test demands greater rider skills than the outgoing (2007) Motorcycle Test, hence the lack of a positive relationship between hours of 2007 training and passing the 2009 off-road test. It may also be that the amount of extra training given for the 2009 off-road test depended less on the abilities of individual trainees. This would avoid the situation of better trainees receiving little pre-test training.

**Table 4.12: Mean hours of training for those who passed and failed the 2009 off-road mock test**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean hours of training when passing (N=32)</th>
<th>Mean hours of training when failing (N=17)</th>
<th>Significance level from univariate ANOVA (N=49)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean hours of 2007 training</td>
<td>13.2</td>
<td>18.2</td>
<td>.039*</td>
</tr>
<tr>
<td>Mean hours of 2009 training</td>
<td>1.7</td>
<td>0.3</td>
<td>.068</td>
</tr>
</tbody>
</table>

\*Significant at p<.05

There was no significant age difference between participants who passed the 2009 mock off-road test (30.3 years) and those who failed the test (30.9 years). This was also true of participant confidence in passing the off-road test which, on an increasing scale of confidence from 1 to 5, was identical at 3.6 for participants who passed and failed the 2009 test. Confidence may have not been closely associated with passing or failing the 2009 off-road test as the off-road course was predominantly an unfamiliar exercise for participants. With such limited knowledge of the test it would be arguably quite difficult for them to be either highly confident or not at all confident.

**4.2.11 Faults recorded for the 2009 mock off-road test**

DSA records three types of fault for the practical riding test: dangerous, serious and riding faults. A dangerous fault is when a rider’s actions place them and/or another road user in actual danger. A serious fault is when a rider’s actions have led to a potentially dangerous situation emerging and can be recorded when several riding faults have been made in the same category, demonstrating an overall weakness in that area. Riding faults can refer to any demonstrations of poor riding ability that, alone, do not compromise safety but do demonstrate sufficient deviation from the defined outcome. Candidates cannot pass the test after committing a single serious or dangerous fault or six or more riding faults. During the research it was assumed that the criteria used by the DSA examiners for marking faults during the mock 2009 off-road tests and during the 2007 Motorcycle Tests was consistently applied\(^\text{15}\).

\(^{14}\) Tested with a one-way analysis of variance on hours of additional training for the 2009 mock off-road test.

\(^{15}\) The judgement of DSA examiners is recognised to be based on a subjective assessment of a rider’s performance, albeit one that is supported by comprehensive, standardised training and appraisal programme. However, it should be noted that the off-road tests were assessed by any one of just four Assistant Chief
At least one fault (of any severity) was recorded for 70% of participants during the 2009 off-road mock test (Table 4.13). One third of the sample (34%) recorded riding faults when attempting to move off safely (typically these were observation faults, where participants had not made the same visual checks for traffic as they would need to on-road). This was somewhat greater than the fifth of participants (20%) who made similar faults during the 2007 Motorcycle Test, and might indicate that the standard of observational checks off-road was lower than was demonstrated on-road.

Table 4.13: Percentage of participants committing faults during the 2009 mock off-road test and the 2007 Motorcycle Test

<table>
<thead>
<tr>
<th>Fault</th>
<th>% reported for mock 2009 off-road test (N=50)</th>
<th>% reported for 2007 test (N=35)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Riding fault</td>
<td>Serious fault</td>
</tr>
<tr>
<td>Use of motorcycle stands</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Moving off safely</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>Moving off under control</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Manual handling</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Slalom/figure of eight</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Avoidance exercise at 50kph</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>U-turn</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Slow ride</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Emergency braking safely</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Emergency braking under control</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Minimum speed (50kph)</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>At least one fault</td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>

N.B Only one type of fault per manoeuvre for each participant was recorded in the dataset for analysis. The recorded fault was always the one with the greatest severity.

The next most common faults (of any severity) were made on the slow ride and the slow manoeuvres, comprised of the slalom and the figure of eight (24% of the sample recorded faults for both)—Table 4.13. Comments received during the study from participants and their instructors suggested that the slow ride was conducted at a considerably slower pace than might typically be taught during training (hence the relatively high frequency of faults). In addition, the slalom and figure of eight manoeuvres (see Figure 4.7) also generated a comparatively high number of faults (especially serious faults) and this was partly attributed by participants and instructors to the demands of completing such manoeuvres on 500cc bikes with limited turning circles. There was no supporting evidence in the data to show that faults on these
manoeuvres were significantly more common for motorcycles with a capacity of 500cc or more, although it is worth noting that the comparable sample of 125cc motorcycles in the study was small (14 participants).

Figure 4.7: A mock test participant practising the slalom and figure of eight manoeuvres under the supervision of their instructor

Approximately one fifth of the sample committed at least one fault during the two speed-dependent manoeuvres of the 2009 off-road test (Table 4.13). Emergency braking faults (related to safety and control) were recorded by 18% of the sample. This was comparable with the percentage of similar faults reported for the 2007 Motorcycle Test (20% of the sample) although for the mock off-road test there was a relatively high proportion of serious control faults (8%). It is possible that these serious control faults (which typically involved locking the wheels under braking) may be attributed to participants having to brake from higher speeds than would normally be practised during training for the outgoing test. Twenty percent of the sample committed at least one riding fault during the avoidance exercise, including 3 participants who committed serious or dangerous faults, which included hitting the cones that mark out the ‘hazard’ or simply riding straight through the hazard rather than steering to avoid it.

Factors that were potentially associated with the number of faults recorded for participants during the 2009 mock off-road tests were entered into a linear regression analysis. The single statistically significant finding (p<.05) was that participants who had taken a 15 minute practice session recorded fewer faults during the 2009 off-road test.

Participants were given two attempts to complete both the avoidance and the emergency braking manoeuvres so, if they were unable to reach the minimum required speed of 50kph, they were permitted a second attempt, exactly as proposed for the 2009 test proper. Average speeds achieved on the first and second attempts at the avoidance manoeuvre were below 50kph (mean of 48kph), although modal values

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16 Multiple linear regression analysis was used to model the relationship between the total number of faults recorded for each participant during the mock 2009 off-road test and factors such as the amount and type of training, participant demographics and experience.
(i.e. the most commonly reported speed values) indicate a rise in speed for some participants on the second attempt (Table 4.14). Higher mean speeds were recorded for the emergency braking manoeuvre on the first and second attempts (54kph and 49kph, respectively). It is notable that the range of recorded speeds was higher for the emergency braking manoeuvre than for the avoidance manoeuvre (32-67kph compared with 30-58kph).

Table 4.14: Speed achieved by participants as measured during the two speed-dependent manoeuvres of the 2009 mock off-road test

<table>
<thead>
<tr>
<th>Manoeuvre</th>
<th>Run #1</th>
<th>Run #2</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mode</td>
<td>Mean</td>
<td>Mode</td>
</tr>
<tr>
<td>Avoidance</td>
<td>48£</td>
<td>49£</td>
<td>48£</td>
<td>55£</td>
</tr>
<tr>
<td>Emergency braking</td>
<td>54£</td>
<td>53£</td>
<td>49£</td>
<td>48£</td>
</tr>
</tbody>
</table>

£N=50  £N=27  £N=49  £N=11

From the questionnaire responses, participants rated the avoidance manoeuvre as the most difficult to maintain an appropriate speed throughout; on a 5-point scale of increasing ease (1=very difficult and 5=very easy) an average rating of 2.8 was reported (see Figure 4.8). This showed it was more difficult than keeping an appropriate speed for the slow manoeuvring exercises and the slow ride (each rated at 3.2) and more difficult than cornering at a recommended 30kph (rated at 3.3 on the scale).

Figure 4.8: The cones for the avoidance manoeuvre (riders must move to the outside of the blue cone in the foreground after passing between the two yellow cones in the background that mark the speed ‘gate’ )
Figure 4.9 shows the percentage of participants who achieved the minimum speed requirements. Approximately two-fifths of the sample (42%) achieved the minimum speed of 50kph for both manoeuvres on their first attempt without requiring a second attempt at either. Twenty-eight percent of the sample who did not reach the minimum speed on their first attempt at the avoidance manoeuvre did achieve the correct minimum speed on their first attempt at the emergency braking manoeuvre, and followed this by then achieving the required speed on their second attempt at the avoidance manoeuvre (thus completing the minimum speed requirements). This may indicate practice effects. It seems participants may better understand what is required by the time they first attempt the emergency braking manoeuvre after first attempting (perhaps unsuccessfully) the avoidance manoeuvre. A quarter (26%) did not fulfil either of the minimum speed requirements and therefore failed the mock test.

![Graph showing percentage of participants who met/did not meet the minimum speed requirements of 50kph for the avoidance and emergency stop manoeuvres.](image)

**Figure 4.9: Percentage of participants who met/did not meet the minimum speed requirements of 50kph for the avoidance and emergency stop manoeuvres (two attempts allowed per manoeuvre)**

Further analysis to determine which factors influenced achieving the minimum speeds did not yield different findings from earlier analyses of the general pass-fail rates for the 2009 mock off-road test. This was expected given that only four of the 17 participants who failed the off-road test met the minimum speed requirements. Therefore, **taking a 15 minute practice session before the off-road test was the one factor significantly associated with achieving the minimum speed.**

Table 4.15 shows how meeting the minimum speed requirements was associated, in the sample, with motorcycle capacity, use of a left or right hand test circuit, and amount of training taken for the 2009 mock off-road test. The sample was small, and none of the differences were statistically significant (i.e. they might not generalise to the population of future candidates). Nevertheless, the effects observed in the sample are consistent with concerns expressed by some participants. In the sample, participants who rode smaller capacity motorcycles were somewhat less successful in attaining the minimum speed requirements. This issue was commented upon by several instructors and their students, who said it was hard to reach 50kph on 125cc machines in the distance allowed. It appeared to require some practice to match the correct gear to the circuit,
with some bikes needing to be kept in second gear whilst others required a change into third after the 30kph corner and prior to the point at which speed was measured. Other trials by DSA have indicated that practising this manoeuvre is the key to success, although sufficient practice may require access to MMAs prior to taking a 2009 test.

**Table 4.15: Percentage meeting the 50kph minimum speed requirements based on motorcycle capacity, circuit used and training taken**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Response</th>
<th>% meeting the 50kph minimum speed requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorcycle capacity</td>
<td>125cc or less (N=14)</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>500cc or more (N=36)</td>
<td>78</td>
</tr>
<tr>
<td>2009 test taken using:</td>
<td>a left-hand circuit (N=21)</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>a right-hand circuit (N=29)</td>
<td>79</td>
</tr>
<tr>
<td>Training for the 2009 test taken:</td>
<td>No (N=28)</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Yes - but none at a DSA centre</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>(N=10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes - and at least some at a DSA centre (N=12)</td>
<td>92</td>
</tr>
</tbody>
</table>

5  **Summary and discussion**

The findings from the interviews with ATBs and the mock 2009 off-road tests are discussed in this section in relation to:

- additional training taken for the 2009 mock off-road test
- participant performance on the 2009 mock off-road tests
- factors associated with passing or failing the 2009 mock off-road test

In light of the relatively small sample size, these findings can only provide an indication of the training practices, participant performance and other factors associated with the new motorcycle test introduced in April 2009.

5.1  **Additional training for the 2009 off-road test**

**Content and duration**

The interview findings suggested that instructors who opt to provide further training for the 2009 off-road test are likely to be faced with similar decisions, such as:

- which manoeuvres to train on-road and on existing off-road sites;
- which manoeuvres to train on a DSA site;
- should applicants be given an opportunity to link the entire sequence of manoeuvres before taking their 2009 off-road test;
- should additional slow-control training be provided; and,
- should new manoeuvres be taught in a distinct, modular form, or integrated into current training practices.
Almost half (44%) of the participating learner riders received specific additional training for the 2009 off-road manoeuvres and 78% had a 15 minute practice session before their mock test. Where training was provided, it ranged from a further 10 minutes to six hours, with an average of three hours. If the motorcycle training industry as a whole has a similar response to the 2009 Motorcycle Test, it would be reasonable to expect training courses to increase in duration to accommodate the off-road test requirements. With experience, instructors may find they are able to train trainees for the 2009 test more efficiently (as seemed to be the case with a few ATBs in the study that brought participants more than once).

**Location**

It appears possible to provide trainees with additional training and practice on a DSA Motorcycle Manoeuvring Area, on an alternative off-road area, or even on-road. The high percentage of participants who practised on a DSA site (almost four-fifths had at least a 15 minute practice session) is an indication of a potentially high demand for access to DSA MPTCs for training purposes once the 2009 Motorcycle Test is introduced. Although instructors did make use of other off-road sites for training, most were of the opinion that these sites were unsuitable for the speed-dependent manoeuvres (the 30kph circuit ride and the 50kph avoidance)—see Figure 5.1.

![Figure 5.1: A test participant riding through the speed gate in excess of 50kph during a practice session](image)

Several ATBs in the study considered it unsafe to bring trainees to the off-road test without having first equipped them with specific skills (such as additional slow-ride ability, confident cornering and manoeuvring at higher speeds, and counter steering) to complete all the manoeuvres in sequence. This type of response suggests that the new off-road test may be successful in raising the expected level of training that riders must undergo before being ready for licensure.

- Some ATBs reported that they were concerned about the safety of the new off-road test—in particular the proximity of the 30kph corner to the fencing and kerbing, and the need for a minimum speed to be reached for two manoeuvres. However, risks of a similar or greater magnitude would be present if manoeuvring
was assessed on-road and the MMA does at least allow many risks to be
minimised and standardised. DSA investigated such issues during the design of
the new test and is confident that the new test provides an acceptable level of
safety. Perhaps these fears underline the need for instructors to provide
improved training so that applicants can undertake the track manoeuvres safely
and thus be equipped with skills necessary for normal on-road riding.

Contact with ATBs during this study suggests that only a small proportion will be able to
access sufficiently sized off-road sites. For those that cannot, access to a local DSA
MPTC will probably be the best route to providing training on a large off-road site.

**Manoeuvres**

The subject of counter steering is a contentious one amongst motorcycling trainers and
testers. Some believe it should never be taught as an overt skill. Others believe it should
be taught only to advanced riders, and some (as reported here) believe that it can be
useful to teach it to learners. The main arguments are to do with, (a) the fact that
counter steering develops naturally (all normal motorcycle steering is in fact by counter
steering, though the rider may not be aware of this), (b) a concern that teaching riders
overt counter steering may cause them to act unsafely in an emergency and (c) a belief
that for at least some riders, it is helpful and appropriate to teach counter steering.
Scientific evidence is lacking in this area and the findings from this study do not provide
robust evidence to support whether the teaching of overt counter steering is to be
encouraged or discouraged.

Motorcyclists in the study reported some nervousness and anxiety when performing the
cornering and avoidance manoeuvres but still rated these manoeuvres as ‘very useful’.
Performing such controlled manoeuvres accurately and within limited space is, arguably,
a useful skill for independent on-road riding. It may be better to develop these skills in
a controlled training and assessment environment rather than on the public road, where
any initial anxiety could lead to indecisiveness and possibly even a collision.

Overall, the most useful manoeuvres according to participants were the controlled and
emergency braking exercises, both of which required stopping the motorcycle safely
from at least 50kph. This might be because they encourage the development of
extremely relevant skills for safely stopping a motorcycle when travelling at ‘real-world’
speeds. This contrasts with outgoing test requirements that do not measure speed prior
to braking and require only an emergency stop to be demonstrated (at a slower,
unmeasured speed of about 30kph).

Participants reported a particular need to further improve their performance on the new
speed-dependent test manoeuvres (the avoidance, cornering and emergency braking).
Through exposure to new or demanding manoeuvres, the 2009 Motorcycle Test could
prompt a greater proportion to recognise where they need to improve pre-test—and
even post-test—and go some way to improving the standard of newly qualified riders.
The off-road test also encouraged participants to appraise their slow manoeuvring
critically and generated awareness of a need to improve.

When performing the off-road test manoeuvres, participants did not always demonstrate
safe traffic awareness and observation. Some ATBs believed this to be a function of the
traffic-free off-road environment which they thought may undermine the adoption of
essential road safety skills. ‘Looking without seeing’ is a known road safety problem and
some trainers had concerns that 2009 training practices may reinforce such behaviour as
trainees can be confident that no real traffic will appear on the MMA. However,
examiners will look for observation errors off-road and whilst it may be true that a
genuinely dangerous error is less likely to occur, serious errors of observation will still be
detected and result in failure. Applicants will be expected to develop and practice their
on-road observation when manoeuvring, even if the 2009 test requires such skills to be
assessed off-road. Applicants are also expected to interact with real traffic safely during
their on-road assessment and poor observation skills will be evident here.
Overall, the 2009 off-road manoeuvres are likely to require riding techniques, such as balance, speed control, cornering and vision, to be taught with greater focus than they perhaps are currently and over a longer duration.

5.2 2009 off-road test performance

With 64% of the sample passing, the pass rate for the 2009 mock off-road test alone was practically identical to the national Motorcycle Test pass rate in 2006-7 (65% passing). However, only 43% of those who took this test and reported the result of their subsequent 2007 Motorcycle test passed both tests. This suggests that when applicants are asked to demonstrate competent manoeuvring and road-riding for the 2009 Motorcycle Test, pass rates may decline from 2007 levels.

Further insight into the potential impact of the 2009 test was gained by exploring why some participants passed one test, but not the other. Of the few participants who did fail the mock test but still passed the outgoing test, more failed on newly introduced manoeuvres (e.g. achieving minimum speeds and the avoidance) than on manoeuvres that are currently assessed. Failing elements of the 2009 off-road test but still passing the 2007 test in this way does indicate that the new test is more demanding. Where serious or dangerous faults occurred on the mock test for manoeuvres that are assessed by the 2007 regime (e.g. U-turn and emergency stop), it may be that the specific requirements of the 2009 test demanded more from some participants than the outgoing test. For example, the 2009 test requires an emergency stop from 50kph (whereas testing prior to April 2009 is believed to have unofficially required about 30kph) and is more likely to lead to a serious control fault of the type demonstrated by at least one participant in this study (i.e. locked wheels under braking).

Conversely, there was no indication that participants who were unable to pass the outgoing 2007 Motorcycle Test will have improved chances with the 2009 test. Overall, it seems likely that the 2009 test will introduce new or differently assessed manoeuvres that will contribute, at least initially, to a lower pass rate than for the outgoing motorcycle test. It also needs to be borne in mind that as test duration and complexity is increased, pass rates are likely to reduce even if the type or level of skills assessed remain unchanged.

5.3 Factors associated with passing the 2009 mock off-road test

15 minute practice session

Participants who took a 15 minute practice on the DSA MMA prior to their 2009 mock off-road test were significantly more likely to pass. This was probably due to being able to practise all of the off-road manoeuvres in sequence and before taking the off-road test. According to the instructors and participants in this study, and the test findings, the elements of training and practice that are considered essential for passing the off-road test include being able to train on a site of comparable size to a DSA MMA, with the opportunity to attempt all of the off-road manoeuvres in sequence and at the appropriate speed, with accurate feedback on the speeds that were achieved (via the DSA speed measuring equipment\(^{17}\)). The 15 minute practice session offers all these benefits.

Some instructors were anxious that errors made during a 15 minute practice could contribute to poor performance on the test itself. This research did not find support for this view but it is acknowledged as a valid concern. Where instructors are concerned

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\(^{17}\) The equipment used by DSA to measure the speed reached by a candidate during the avoidance and emergency braking manoeuvres is unlikely to be purchased by ATBs due to its high cost. Those training for the 2009 off-road test may only get an opportunity to have their speed on these manoeuvres measured accurately if they train or practise at a DSA MPTC. At the time of reporting, DSA were permitting ATBs to access MMAs for training purposes and were supplying them with the cones and the speed measuring devices.
that trainees could be affected in this way, they should work with them to reduce the
effect of faults on subsequent performance, perhaps by helping to increase their
confidence. (Since carrying out the research, DSA opted not to provide access to MPTCs
for a practice session immediately before the test, but to provide the facility to book 15
minute training slots at other times).

This research suggests that a 15 minute practice could make the most significant
contribution to passing the off-road test. At the time of reporting, DSA were offering
access to MPTCs for training at no additional cost; however, even as a cost-option, it
may still reduce the overall cost of learning to ride by increasing an applicant’s
probability of passing the off-road test on the first attempt.

Training for the 2009 test

The findings suggested that pass rates for the off-road test might well improve with
additional hours of training dedicated to the 2009 off-road manoeuvres. As a guide,
between 90 and 120 minutes might be an appropriate minimum, based upon mean
amounts of additional training provided to study participants. The context of such
additional training and the location of the delivery are also believed to be of some
importance (although this could not be demonstrated statistically with the data).
Delivering training for the off-road manoeuvres at a DSA test centre would be ideal—or
at another off-road location with space to replicate the manoeuvres.

Reaching the minimum speed

Compared to other manoeuvres, it was the most difficult and least likely for participants
to successfully reach at least 50kph on their first attempt at the avoidance manoeuvre.
As the first of the speed-dependent manoeuvres, this could be a product of nervousness
or unfamiliarity. Moreover, as reported anecdotally during the study, participants were
conscious of having to somewhat counter-intuitively accelerate towards a hazard. Such
complications are undoubtedly more pronounced without prior experience and the data
offered further indications that prior practise of the speed-dependent manoeuvres might
contribute to improved performance.

Indeed, there was evidence of practice effects in the minimum speed requirements, with
just one attempt at reaching the required 50kph appearing to help subsequent attempts
at the required speed. This experience could either be obtained in earlier training
exercises (given a suitably sized off-road site) or during a 15 minute practice session.

6 Conclusions and recommendations

6.1 Conclusions

ATBs agreed to a varying extent that the new 2009 Motorcycle Test will:

- Standardise the testing conditions for manoeuvres (particularly the U-turn and
  emergency braking).
- Deliver an improved standard of riding amongst newly qualified motorcyclists.
- Reduce the number of riders who pass their test having received only minimal
  training.

The logistical challenge of ATBs accessing off-road sites of an appropriate size to train for
the 2009 test may be overcome if DSA can provide each candidate the option of a 15
minute practice session on a DSA site prior to their 2009 test. The demand for access to
appropriate training facilities is an overall indication of the potentially positive impact of
the 2009 off-road test on the training industry. It suggests that the motorcycle training
industry recognises the demand for—and intends to deliver—a higher standard of
training than for the outgoing test. This higher standard is primarily a product of new,
speed-dependent manoeuvres (cornering, avoidance and emergency braking) but also stems from a more demanding set of slow control manoeuvres.

6.2 Recommendations

The desire from ATBs for appropriate training facilities is an overall indication of the potentially positive impact of the 2009 off-road test. It suggests that the motorcycle training industry recognises the demand for—and intends to deliver—riders of a higher standard than required by the outgoing licensing regime. This higher standard is primarily a product of new, speed-dependent manoeuvres (cornering, avoidance and emergency braking) but also stems from a more demanding set of slow control manoeuvres. Several recommendations follow from this research although it is worth noting that all findings were only indicative, as the sample on which they are based was small and not scientifically robust. To facilitate a positive effect from the 2009 test, it is recommended that:

1. **All ATBs experience the 2009 off-road test prior to providing trainees with training for it.** DSA has already provided several opportunities for ATBs to trial the test prior to April 2009. This will have helped to limit doubt or confusion over the 2009 test requirements and should enable instructors to design and deliver more effective training from the outset.

2. **Information on the 2009 Motorcycle Test and the requirements of the off-road component should be made available for instructors and candidates alike.** A valuable resource could be created using content that is similar to what was provided to instructors during this study (i.e. the test circuit dimensions and plan, common questions and answers, and a video demonstration). To stimulate effective training, it would be desirable to communicate to ATBs concise messages about key facts: how does the 2009 Motorcycle Test differ substantially from the outgoing Motorcycle Test, how do the off-road test manoeuvres differ from those practised at CBT level, how does the off-road assessment criteria demand the same observation skills as required on-road, etc. Additional research may be necessary to develop such content into an accessible format.

3. **Instructors should continue to provide on-road as well as off-road training for the off-road manoeuvres of the 2009 test.** Trainees should be encouraged to develop on-road experience of road-relevant manoeuvres (such as the U-turn and emergency stop) to ensure that they are competent of performing them safely under realistic traffic conditions.

4. **At the very least, 2009 test candidates should experience 15 minutes of training or practice on an off-road site large enough to replicate the full test circuit.** One recommended route to achieving this goal is for DSA to provide 2009 candidates and their instructors with an opportunity to use a DSA MMA for 15 minutes when training for the 2009 Motorcycle Test. Most concerns that ATBs have about the new test are centred on the logistical challenge of training and testing new trainees on an off-road circuit that occupies a considerable area and is not easily replicated using the facilities currently available to the majority of ATBs. For DSA to provide the opportunity for each candidate to take a 15 minute practice session on a DSA site is an effective step to facilitate training candidates for the 2009 test.

5. **ATBs should offer 2009 test candidates a training course that at least familiarises them with the complete sequence of off-road manoeuvres to reduce the potential for confusion and errors during the test.**

6. **ATBs should consider the inherent value of counter steering for the avoidance manoeuvre** and ensure that trainees can counter steer appropriately based on indirect or explicit instruction.
7 Current status of the 2009 test

At the time of publishing (August 2009), DSA had already implemented a number of measures to address the recommendations from this research. This section specifies where changes have been made, some of which were in response to consultation and research prior to the launch of the new test in April 2009.

Access to MPTCs for training purposes

Since December 2008, the Driving Standards Agency has made Motorcycle Manoeuvring Areas (MMAs) available for training purposes to assist the training industry in its preparation for the introduction of the new test and beyond. Currently, this facility is being provided free of charge in the form of 30 minute training sessions with a system that allows trainers to book a scheduled slot. These training sessions are facilitated by a Site Access Manager and all essential standard test equipment is made available, including cones and the speed measuring device. Periods not set aside for testing will be made available for training.

By providing access to MPTCs for training, DSA have addressed one of the primary concerns held by ATBs who participated in this study. The current training provision provides a sufficient amount of time for familiarisation with the new test (according to ATBs in this study) and also provides access to the speed measuring equipment that was considered essential for preparing for the test.

Current provisions to make the test ‘accessible to all’

In January 2008, DSA distributed an information pack containing a DVD of the 2009 off-road test, notes for guidance and laminated test layout plans to all ATBs free of charge. The DVD is in English, includes subtitles and is available to view via the DSA website. The illustration of the exercises as used by the examiner is also available on line and is used during tests to provide a clear visual indication of what is required of candidates to accompany any verbal instructions. The DSA website also provides access to the notes for guidance (DT1) that is issued to examiners. As with all DSA tests, the provision to have an interpreter present during the test is built into the booking process. These steps have been taken to ensure that the 2009 Motorcycle Test retains the same high levels of accessibility to applicants from all backgrounds.

Current service provision

At the time of publication, DSA was delivering off-road (Module 1) tests from 66 sites and on-road (Module 2) tests from 136 sites. This service is provided from an estate made up of Multi Purpose Test Centres (MPTC’s) and some casual and part time use of various sites operated by VOSA (Vehicle and Operator Services Agency). The Agency continues to seek new locations to expand its network of MPTCs. As of August 2009 (four months after the new test was launched) waiting times nationally stand at 3.8 weeks for Module 1 and 3.2 weeks for Module 2 against a national average target of 6 weeks.

For trainers, DSA plans to continue to organise ‘Open Days’ to coincide with the opening of any new MPTC from which the 2009 Motorcycle Test will be delivered. Open days will allow DSA staff to demonstrate both the new facilities and the off-road (Module 1) motorcycle test. This will afford the training industry the opportunity to interact with DSA staff and discuss aspects of the new test first hand.

Health and safety during the test

The configuration of the off-road exercises allows for a safe run off area within the Motorcycle Manoeuvring Area (MMA), with the higher speed exercises conducted either
running away from any boundary or having an adequate ‘run off’ provided. The ‘U’ turn exercise has a minimum of 500mm to either a low kerb or a standard fence. The primary aim of the fencing is to keep people off the MMA whilst tests are being conducted. The fencing and posts have been placed outside the area and have been positioned to maintain the area size of 125m X 40m, any gap between the tarmac and the fence has been backfilled with heavy duty bark chippings. In conclusion the environment provided by the MMA is far safer, and creates a more uniformed test, than those encountered when the test was conducted on public roads.

Acknowledgements

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References

Appendix A: Diagrams of the 2009 off-road circuit (left and right)

MOTORCYCLE MANOEUVRING
Left Circuit
1. On and off the stand
2. Wheel the machine
3. Slalom
4. Figure of eight
5. 30 kph circuit ride
6. 50 kph avoidance
7. Controlled stop
8. U-turn
9. Slow ride
10. 30 kph circuit ride
11. 60 kph emergency brake
MOTORCYCLE MANOEUVRING
Right Circuit

1. On and off the stand
2. Wheelie the machine
3. Slalom
4. Figure of eight
5. 30 kph circuit ride
6. 50 kph avoidance
7. Controlled stop
8. U-turn
9. Slow ride
10. 30 kph circuit ride
11. 50 kph emergency brake
Appendix B: Topic guide for ATB interviews

Introduction

Thank you for agreeing to participate in this interview and for assisting us with this research. We understand that you have offered to try and recruit a number of trainees who are test-ready - and then deliver some additional training to them to prepare them to sit a mock version of the 2009 Motorcycle Test Update. The purpose of this interview is to discuss how you have been (or will be) preparing for the test, what training you plan to offer and whether you have any comments or concerns relating to training riders for the test.

Knowledge and practical experience

How much knowledge do you have of the 2009 Motorcycle Test update?

- Do you know:
  - what tasks it includes
  - when it is to be introduced
  - why it is being introduced

How much practical experience do you have of the 2009 Motorcycle Test update?

- Have you taken a ‘test’ yourself? If so, where? How was it explained to you/what did the introduction cover?
- Do you feel that you have adequate practical experience of the new test?

Training plans

How will you train riders to take the 2009 Motorcycle Test update?

- Will you provide additional training?
- If so, how will you provide this training?
  - Which methods will you use?
  - Will you provide a specific lesson or will you incorporate the tasks into other lessons?
  - Why have you opted to train riders in this way?
  - How do you plan to teach them each of the specified manoeuvres?
  - How will you judge whether a rider is sufficiently prepared for the test?
  - Will training vary depending on the rider and their previous experience? How will you decide this?
- What alternative forms of training have you considered for the 2009 test? (Are you constrained in any way in what you can offer? If so, how might this effect trainees?)

Where will you train riders to take the 2009 Motorcycle Test update?

- Do you plan to use any specific facilities? (e.g. car park, training ground, etc)
- Will these vary between different training sites?
- Why have you chosen to train riders here?
- How do the specific manoeuvres within the 2009 test affect where you train riders?
- What benefits are there to training riders in this way?
- Will it vary depending on the rider? How will you decide this?
- What other locations have you considered?
How long will you spend training riders specifically for the 2009 Motorcycle Test update?

- How much time do you plan to give to this training?
  - Why do you think it will require this duration? On what basis did you decide upon this duration?
  - Will it vary depending on the rider? How will you decide this?

**Additional comments/concerns**

What other comments or concerns do you have regarding the training of riders for the 2009 Motorcycle Test Update?

- Additional time required to train riders
- Additional cost to train riders (to trainers and trainees)
- Availability of facilities for training
- Complexity of the additional tasks/manoeuvres
  Value of the additional training to riders (how useful will it be? what effect will it have on safety? On competence?)

We plan to test a group of riders on the 2009 Motorcycle Test Update during March and April 2007. We are aiming to recruit DAS trainees initially. How feasible would it be to:

- train a small number of riders for the 2009 Motorcycle Test Update during their DAS course?
- follow training with a trip to nearest DSA centre to allow trainee/s to undertake the mock 2009 Test (prior to taking actual motorcycle test and NOT on the same day)?
- administer a short questionnaire post-2009 training but pre-2009 test?

How soon might you be able to help with the recruitment and training of test-ready DAS applicants?

- Do you have any questions or comments regarding recruiting and training applicants for this trial?

We plan to conduct the trial tests at nearby DSA centres. It is likely that riders will be tested in small groups on the same day. How might you suggest getting riders and bikes to the centres on the test day?

- Accompany them on the road? (any bike sharing? what risks might there be?)
- Any other suggestions, comments or concerns about the logistics of this trial?
- How might you suggest scheduling these tasks within a DAS course?
Appendix C: Correspondence to participating ATBs

Dear XXX

Re: Training applicants for the off road component of the 2009 Motorcycle Test

Thank you for considering assisting with our research into the 2009 Motorcycle Test. Included in this letter is some information to help you decide whether you would like to bring some of your trainees for mock-tests at the XXX DSA Multipurpose Training Centre.

Any student you bring should be provided with whatever training you feel is necessary for them to successfully complete the 2009 off-road test. You may feel that your existing training for the 2007 test is sufficient, or you may choose to offer further, specific training to cover the manoeuvres of the 2009 off-road test.

Trainees will then take a mock version of the 2009 off-road test sometime before taking their 2007 test.

Below are the conditions for participation:

1. Applicants may be training for any class of motorcycle but should be aiming to take a 2007 test soon after they take the 2009 mock test.

2. Applicants will receive a one-off payment of £75 for participating.

3. ATBs will receive an incentive of £50 for each rider they train for this study. In addition, TRL will cover any costs associated with training applicants and taking them for a mock test, such as bike hire. If you keep track of any extra costs over and above the £50 incentive, these can then be invoiced to us (a reasonable limit per applicant will need to be agreed). We can discuss this with you before you begin to recruit or train riders for the study.

4. Applicants must take their mock 2009 off-road test BEFORE their 2007 Motorcycle Test. Ideally, all riders participating in the research will be ‘test ready’ when they take their mock 2009 off-road test (this will best simulate the requirements for the actual 2009 Motorcycle Test). Therefore, it is suggested that riders take the mock 2009 off-road test one day before their 2007 Motorcycle Test - but after they have received adequate training for them to be considered ‘test ready’.

5. Applicants will have the choice of a 15 minute practice session on the DSA off-road course immediately before taking the 2009 mock test. All trainers/trainees have the option of a 15 minute practice prior to taking the 2009 mock test. In addition, it may be possible to arrange a small amount of time on the site for a longer training session.

6. Applicants will be asked to complete a questionnaire before taking their mock 2009 off-road test. This questionnaire will ask the riders taking part in the research to describe the training they received for the 2009 off-road test. They will need to answer this questionnaire after they have received all training, but before taking their mock off-road test.

7. ATBs will be asked to complete a questionnaire about each trainee they recruit. For the study to be effective, it will be necessary to know precisely what training was provided to each applicant for them to take the 2009 off-road test. We have a separate questionnaire for ATBs to complete for each rider that they
recruit and train. ATBs will have the choice of training each rider they recruit in
the same way, or offering different training to different riders. The only
requirement is that all training is clearly described to TRL, including any
differences between riders.

Also enclosed is a list of Frequently Asked Questions relating to the 2009 Motorcycle
Test, created by DSA and TRL. This includes diagrams of the test (both left-hand and
right-hand versions), which may be required if attempting to replicate components of the
test on other off-road sites.

If you have any questions about the research, or would like to discuss any aspect of your
participation, please get in touch (XXX, email: XXX).

Thank you for your help with this research, your participation is very much appreciated.

Kind regards

N.B. Some aspects of the information supplied to participants during the research (such
as the proposed training provisions at DSA sites) has since changed. Accurate and up-to-
date information can be obtained from DSA.
Appendix D: 2009 test information provided to participating ATBs

2009 Motorcycle Test (extract from DSA website)

Background to the reasons for the project

The new practical motorcycle test is being introduced from April 2009 to comply with European legislation, which aims to improve the standard of road safety for motorcycle and moped riders. This user group have been identified as having a high risk of injury or death. This is particularly the case for young and inexperienced riders.

In October 2000, the European Commission brought in new standards for theoretical and practical driving tests conducted within the European Union (EU). This new legislation adds to this and is intended to ensure that motorcycle test applicants demonstrate that they are competent in the control of their machines at a more demanding level than is currently the case.

The new test will be delivered from a network of sites provided either directly by DSA or via private developers. Many of the centres will be Multipurpose Test Centres (MPTC) providing both motorcycle and car testing facilities. Some will provide Large Goods Vehicle (LGV) and Passenger Carrying Vehicle (PCV) testing facilities. Some low use sites will only provide motorcycle testing.

What is different about the new motorcycle test?

The new EU standards set extra and more demanding special manoeuvres that must be included in every practical motorcycling test. These new standards include:

- at least two manoeuvres being carried out at slow speed, including a slalom
- at least two manoeuvres being carried out at higher speed, of which one manoeuvre should be in second or third gear, at a speed of at least 30 km/h (18.6 mph) and one manoeuvre avoiding an obstacle at a minimum speed of 50 km/h (31.1 mph)
- at least two braking exercises, including an emergency brake at a minimum speed of 50 km/h (31.1 mph)

The diagrams (see Annex 1) show the proposed layout of the manoeuvring area. At the discretion of the examiner, applicants will be asked to demonstrate their ability to ride a right circuit, and steer to the right on the avoidance exercise or a left circuit and steer to the left on the avoidance exercise.

Why are special "off road" facilities required?

It was considered that it would not be safe to conduct the new higher speed and braking manoeuvres on public roads, which in very built up and busy test areas, would not be
safe for the rider, other road users and the general public.

Undertaking a fair and consistent assessment for all applicants across Great Britain would be best achieved by using a pre-determined layout using ground markings and cones. It would be impractical to do that on a public road with other traffic present.

Due to the minimum speeds required and different handling and power characteristics of different machines, it has been necessary to calculate a minimum test area in which to conduct the new test.

**What will the new Multi-Purpose Test Centres provide?**

- comfortable waiting room with toilet facilities
- easy access and toilet facilities for disabled applicants
- good off road parking facilities for motorcycles and cars
- separate "radio kit up" room for motorcycle applicants
- an off road motorcycle manoeuvring area for the new test, finished with a high specification surface providing good grip in wet and dry weather and designed to be without hazards such as drainage gullies

**The 2009 Motorcycle Test – FAQs (from DSA website, further questions and details in Annex 2)**

1. **Is the Practical Car test going to change in 2009?**

   No. The new test is for Motorcyclists only.

2. **Why is there going to be a new motorcycle test?**

   The new practical motorcycle test is being introduced from April 2009 to comply with European legislation, which aims to improve the standard of road safety for motorcycle and moped riders. This user group have been identified as having a high risk of injury or death. This is particularly the case for young and inexperienced riders.

3. **What does the new test consist of?**

   The new test consists of a series of off road manoeuvres followed by the on road riding part of the test which is similar to the existing motorcycle test.

4. **Why are special off road areas required?**

   The new practical motorcycle test is being introduced from April 2009 to comply with European legislation, which aims to improve the standard of road safety for motorcycle and moped riders. The EU directive requires that more demanding special manoeuvres must be included in every practical motorcycling test. These are being conducted on specially provided off road areas for applicant safety reasons and to ensure that tests are undertaken in standard uniform conditions throughout the country.

5. **How long will the new test last?**

   The off road manoeuvres will take approximately 8 minutes and the on road part of the test will be the same length as the existing test.

6. **What are the off road manoeuvres?**
The EU directive requires that more demanding special manoeuvres must be included in every practical motorcycling test. These include at least two manoeuvres to be carried out at slow speed and includes a slalom, at least two manoeuvres to be carried out at higher speed, of which one manoeuvre should be in second or third gear at a speed of at least 30 km/h (18.6 mph), one manoeuvre avoiding an obstacle at a minimum speed of 50 km/h (31.1 mph) and at least two braking exercises, including an emergency stop at a minimum speed of 50 km/h (31.1 mph). (A diagram of the layout of the off road manoeuvres is in Annex1, detailed measurements of the test layout are given as Annex3.)

7. What happens if I fail the off road part? Will I be told?

If a dangerous fault is committed during the off road manoeuvres, the examiner will terminate the test in the interest of public safety and the customer will be informed.

8. Can I practice the off road part of the new test at the MPTC? How much will this cost?

We want applicants to be able to practice on our off road areas with their trainers. We are currently looking into the best way to arrange this and how much this will cost.

9. How will you measure my speed?

The examiner will use highly accurate speed measuring equipment but the precise nature of the equipment is still to be determined.

10. What will happen if I fail to reach the required speed?

You will be allowed one more attempt at the manoeuvre.

11. How wide is the U-Turn?

7.5 metres.

12. Can I fail on the off road part of the test for lack of observation?

Yes. All manoeuvres will be assessed as if you were manoeuvring in traffic.

13. Will I be able to take my test in the evening or at a weekend?

Yes, where suitable appointments are available. At some Test Centres ‘out of hours’ testing may be limited or not available due to local planning restrictions.

14. When will the new motorcycle test start?

The new test starts from April 2009.

15. Where will the ‘show and tell’ questions be as part of the new test?

After the eyesight test and before the off road manoeuvres.

16. What other exercises/Manoeuvres will I have to do on the road?

Normal stops, hill start, angle start and general road riding

17. How long will I have to wait to retake my test if I fail?
10 working days, the same as the ‘old’ test.

18. **Do I have to take both the off road and on road part of the test together?**

The off road and on road parts of the test will take place on the same occasion as a single test event.

19. **If I fail the off road part of the test but pass the on road why can’t I just pay to take the off road part again?**

The off road and on road parts of the test will take place on the same occasion as a single event test. This will be less costly to administer and deliver and be more convenient for applicants. As it is a single event test the result will apply to the whole test and not just part of the test.

20. **If I fail the on road part of the test but pass the off road why can’t I just pay to take the on road part again?**

The off road and on road parts of the test will take place on the same occasion as a single event test. This will be less costly to administer and deliver and be more convenient for applicants. As it is a single event test the result will apply to the whole test and not just part of the test.

21. **How do I find out where my motorcycle test will take place?**

Details are available on the DSA Web Site

22. **Can I choose where I want to take my Bike test?**

Yes. Details of locations are on the DSA Web Site

23. **If the MPTC near me is built before 2009 will I have to take the new test?**

No. The new motorcycle test will start from April 2009. Even if your test takes place from a MPTC, before this date, you will take the ‘old’ test which will not include any of the new off road area manoeuvres.

N.B. Some aspects of the information supplied to participants during the research (such as the proposed training provisions at DSA sites) has since changed. Accurate and up-to-date information can be obtained from DSA.
Will the DSA test site be available to trainers?
The DSA plan to allow use of their sites in a number of different ways, these are the
options being considered:

1. Offer ATBs access to DSA Multipurpose Test centre (MPTC) off-road areas
   for the purpose of training applicants

   DSA are considering granting ATBs and their students access to the off-road testing
   areas that form part of the new Multipurpose Test Centres. It is acknowledged that most
   training organisations will not have access to off-road sites that are of adequate size for
   recreating the manoeuvres that form the off-road component of the 2009 Motorcycle
   Test. Therefore, DSA have indicated that they may wish to mitigate this potential
   problem by allowing access for training purposes when tests are not being conducted on
   the sites.

   Any access to off-road manoeuvring areas at MPTCs would require appropriate
   supervision to ensure that sites were used appropriately. DSA have proposed two
   solutions: the first is to employ a security guard at each MPTC, the second is for DSA
   examiners to take responsibility for anyone using the site. Both solutions may be used.
   ATBs would be able to book 15 minute sessions for themselves and their applicants on
   the off road sites. A DSA examiner could add value to any training sessions conducted
   on the off road sites by allowing use of the speed measuring equipment that is part of
   the 2009 off-road test, as well as being available to answer any queries from ATBs
   regarding the 2009 off road test. The speed measuring equipment may also be made
   available if the security guard option is chosen.

   Up to three consecutive 15 minute training sessions could be booked at MPTCs during
   testing days, allowing up to 45 minutes on the site, dependeng on the demand for
   testing. During days where testing was not being conducted, off road sites could be
   booked for longer than 45 minutes. Training sessions could be booked in the same way
   as tests.

2. Offer pre-test familiarisation on off-road manoeuvring sites at MPTCs

   From April 2009, DSA have proposed that trainers applying for a practical motorcycle
   test on behalf of applicants could have the option of applying for a longer test slot to
   allow them 15 minutes on the off-road site immediately prior to their practical test in
   order to practice the off-road manoeuvres. The speed measuring equipment would be
   available for use during this familiarisation session and it is likely that a DSA examiner or
   a security guard would provide access to the off road site 15 minutes before testing
   began.

When will test centres be available for training?
Weekdays, weekends and summer evenings are all being considered. Availability of
training time on the off road sites will depend upon the level of test demand at each
MPTC.

What will be the associated costs in using the test centre?
These are currently under discussion, and may vary based upon how the site is
supervised. However, the cost per 15 minutes is unlikely to exceed £20.

How much is the 2009 test fee going to increase?
There are currently no plans to increase the test fee over and above what has already been announced and the usual annual fee increases. Any fee increases will be subject to consultation.

**What about liability when using the MPTC off road sites?**
ATBs will have to sign a use agreement and must have their own liability insurance to specified levels, as required to conduct training, and may have to sign a declaration that they have the necessary liability cover.

**What if there is a crash resulting in oil or fuel spillage?**
There will be suitable materials at the test centre and DSA will have trained staff to handle fuel or oil spillage.

**What if there is a crash and an injury?**
Staff will be trained to deal with incidents of this nature.

**What if a test or training session is cancelled?**
If the cancellation is due to DSA, another test date will be arranged free of charge and compensation may be payable. If the cancellation is due to circumstances beyond the control of DSA (e.g. bad weather, a crash on the circuit), then DSA will offer a free re-test or training session on another date.

**What if the test applicant fails the 2009 off-road test?**
If applicants fail to complete the off road manoeuvres to a safe standard, they may not be asked to complete the on road part of the test as they could be a danger to themselves or others.

**How long will the off-road test take?**
The off road part of the test should take 8-10 minutes. The on road part of the test will still take about 40 minutes even though it will not include the 'U' turn or emergency stop.

**How will the 2009 off-road test be conducted?**
The examiner will explain each test element in turn prior to the applicant attempting to complete it. The examiner will expect the applicant to complete the off road manoeuvres as if they were on a public road. Therefore, applicants would need to demonstrate appropriate observation and signalling at all times. There is a minimum speed required on two test elements and applicants are likely to be given two chances to achieve the required speeds on each of these manoeuvres.

**Is the ‘slow ride’ component of the off-road test timed?**
No, this will not be timed. Applicants will be required to maintain a walking pace alongside the examiner.

**Annex 3: Detailed layout** [A full plan with dimensions between each cone can be provided as a hard copy on request]

N.B. Some aspects of the information supplied to participants during the research (such as the proposed training provisions at DSA sites) has since changed. Accurate and up-to-date information can be obtained from DSA.
Appendix E: Participant questionnaire

Questionnaire for Trainees taking a mock 2009 “off-road” Motorcycle Test

Thank you for agreeing to participate in this research study. You are soon to take a mock version of the 2009 “off-road” motorcycle test. The purpose of this questionnaire is to explore how you have been prepared for the 2009 off-road test, what additional training you have received (if any) and whether you have any comments or concerns relating to the training or test.

SECTION A: YOUR TRAINING FOR THE MOCK 2009 OFF-ROAD TEST

A1 Please provide the name of your trainer and training school:

__________________________________________________________________________

A2a For your current 2007 motorcycle test, how many hours training have you had so far?
(Please write in the box below)

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minutes</th>
</tr>
</thead>
</table>

A2b Will you have a 15 minute practice session on the off-road course immediately before your mock 2009 test?

| Yes | 1 |
| No  | 2 |

A3 Did you receive any additional training or practice for the mock 2009 off-road test?

| Yes | 1 | Go to A4 |
| No  | 2 | Go to B1 |

A4 How many hours of additional training did you receive for the mock 2009 off-road test?
(Please write in the box below)

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minutes</th>
</tr>
</thead>
</table>

A5 Did you practise for the mock 2009 off-road test at the DSA test centre?

| Yes | 1 | Go to A6 |
| No  | 2 | Go to A7 |

A6 How much time did you spend practising for the mock 2009 off-road test at the DSA test centre?
(Please write in the box below)

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minutes</th>
</tr>
</thead>
</table>
A7 Did you practise for the mock 2009 off-road test at any other off-road site (e.g. CBT training area)?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

A8 Please indicate which 2009 off-road test manoeuvres:
(i) You practised at a DSA test centre
(ii) You practised at any other off-road site (e.g. CBT training area)
(iii) You would have liked to have practised more

(Please tick all that apply)

<table>
<thead>
<tr>
<th></th>
<th>(i) Practised at DSA test centre</th>
<th>(ii) Practised at other off-road site</th>
<th>(iii) Would like to have practiced more</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Taking the motorcycle on and off the stand/wheeling the machine</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
<tr>
<td>(b) Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
<tr>
<td>(c) Slow riding</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
<tr>
<td>(d) Controlled stop</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
<tr>
<td>(e) Cornering at 30kph/19mph</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
<tr>
<td>(f) Avoidance manoeuvre at 50kph/31mph</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
<tr>
<td>(g) Emergency brake from 50kph/31mph</td>
<td>□ 1</td>
<td>□ 1</td>
<td>□ 1</td>
</tr>
</tbody>
</table>
### A9

**For the mock 2009 off-road test, how much do you think you still need to improve your ability on each of the following riding manoeuvres?**

(Please circle ONE number on EACH line, from ‘no improvement needed’ to ‘a lot of improvement needed’)

<table>
<thead>
<tr>
<th>No improvement needed</th>
<th>A lot of improvement needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Taking the motorcycle on and off the stand/wheeling the machine</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(b) Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(c) Slow riding</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(d) Controlled stop</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(e) Cornering at 30kph/19mph</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(f) Avoidance manoeuvre at 50kph/31mph</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(g) Emergency brake from 50kph/31mph</td>
<td>1  2  3  4  5</td>
</tr>
</tbody>
</table>

### A10

**How easy or difficult was it to learn the following manoeuvres for the mock 2009 off-road test?**

(Please circle ONE number on EACH line, from ‘very easy’ to ‘very difficult’)

<table>
<thead>
<tr>
<th>Very easy</th>
<th>Very difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Taking the motorcycle on and off the stand/wheeling the machine</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(b) Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(c) Slow riding</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(d) Controlled stop</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(e) Cornering at 30kph/19mph</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(f) Avoidance manoeuvre at 50kph/31mph</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>(g) Emergency brake from 50kph/31mph</td>
<td>1  2  3  4  5</td>
</tr>
</tbody>
</table>
A11  If any of the 2009 off-road test manoeuvres were difficult to learn, please explain why.
(Please write in the box below)

A12  For each of the manoeuvres listed below, please indicate how effective the training has been for preparing you for the mock 2009 off-road test.
(Please circle ONE number on EACH line, from ‘not at all effective’ to ‘very effective’)

<table>
<thead>
<tr>
<th>Manoeuvre</th>
<th>Not at all effective</th>
<th>Very effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Taking the motorcycle on and off the stand/wheeling the machine</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>(b) Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>(c) Slow riding</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>(d) Controlled stop</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>(e) Cornering at 30kph/19mph</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>(f) Avoidance manoeuvre at 50kph/31mph</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>(g) Emergency brake from 50kph/31mph</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
</tbody>
</table>

A13  Overall, how effective was the training in preparing you for the mock 2009 off-road test?
(Please circle ONE number from ‘not at all effective’ to ‘very effective’)

<table>
<thead>
<tr>
<th>Not at all effective</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Very effective</th>
</tr>
</thead>
</table>

A14 If you felt any part of the training for the mock 2009 off-road test was not particularly effective, please explain in the boxes below:

(a) WHY you felt it was not effective

(b) HOW it could have been made more effective

A15 When training or practising, how easy or difficult was it to maintain an appropriate speed through each of the following 2009 off road test manoeuvres? (Please circle ONE number on EACH line, from ‘not at all easy’ to ‘very easy’)

<table>
<thead>
<tr>
<th>Maneuver</th>
<th>Not at all easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(b) Slow riding</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(c) Cornering at 30kph/19mph</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(d) Avoidance manoeuvre at 50kph/31mph</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
A16  For each of the 2009 off-road test manoeuvres listed below, please indicate how useful you think they will be to you when riding in the ‘real world’. (Please circle ONE number on EACH line, from ‘not at all useful’ to ‘very useful’)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all useful</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Taking the motorcycle on and off the stand/wheeling the machine</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td>Slow riding</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d)</td>
<td>Controlled stop</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e)</td>
<td>Cornering at 30kph/19mph</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f)</td>
<td>Avoidance manoeuvre at 50kph/31mph</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g)</td>
<td>Emergency brake from 50kph/31mph</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A17  How much do you think your overall riding skills have improved as a result of training for the mock 2009 off-road test? (Please circle ONE number from ‘Not at all improved’ to ‘Improved a lot’)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all improved</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Improved a lot</th>
</tr>
</thead>
</table>

SECTION B: ABOUT YOU

B1  Overall, how confident are you of passing the mock 2009 off-road test? (Please circle ONE number from ‘not at all confident’ to ‘very confident’)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all confident</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Very confident</th>
</tr>
</thead>
</table>
B2  Why are you confident/not confident?
(Please write in the box below)

B3  Have you ridden a motorcycle/moped prior to starting this training course?
Yes  □ 1  Go to B4
No  □ 2  Go to B7

B4  Please give details of your motorcycle/moped
(Please write in the boxes below)

Engine size (cc)

Make/model

B5  How long have you been riding before you started this training course?
(Please tick ONE box only)

(a)  Less than 1 month  □ 1
(b)  1-3 months  □ 2
(c)  4-6 months  □ 3
(d)  7-12 months  □ 4
(e)  More than 12 months  □ 5
B6  How many miles have you travelled on a motorcycle/moped prior to starting this training?
(Please write in the box below)


miles

B7  Are you:

Male? □
Female? □

B8  What was your age on your last birthday?
(Please write in the box below)


Years

B9  What motorcycle licence are you currently training for?
(Please tick ONE box only)

(a) Category A1 (up to 125cc/11Kw) □

(b) Category A (power output greater than 35Kw, unless under 21 years old and age restricted to motorcycles up to 25Kw and 120-125cc) □

(c) Other (please specify)_____________________________ □

B10 When are you due to take your 2007 motorcycle test?
(Please write in the box below)


Day    Month

B11 Do you have a licence to use any other vehicles? If so, for how many years have you had this licence?
(Please tick all that apply and specify years held)

(a) Motorcycles/mopeds (Category P or A1) □ Years held___________

(b) Motor vehicles/cars (Category B) □ Years held___________

(c) Motor tricycles/quadricycles (Category B1) □ Years held___________

(d) Other (please specify)_____________________________ □ Years held___________
Thank you very much for your help

Personal information provided to TRL will only be used for research purposes and will only be shared with other members of the research team from TRL. Your personal data will always be handled confidentially and all data will be anonymised and summarised. If you have concerns about the way TRL uses personal information, contact the Data Protection Manager at TRL, Crowthorne House, Nine Mile Ride, Wokingham RG40 3GA.
Appendix F: ATB questionnaire

Questionnaire for ATBs about trainees taking a mock 2009 “off-road” Motorcycle Test

Thank you for assisting us with this research. Please complete ONE of these questionnaires for EACH applicant that you have trained for the mock 2009 off-road test. The purpose of this questionnaire is to find out how you have trained each applicant for the mock test.

SECTION A: BACKGROUND

A1 Please provide the name of the applicant that this questionnaire relates to:  
__________________________________________________________________________  

A2 Is this particular applicant taking:  
(Please tick ONE box only)

(a) A DAS course  
☐ 1  

(b) An accelerated Access course  
☐ 2  

(c) Other (please specify)  
____________________________________________________________________  
☐ 3  

A3 For their current 2007 motorcycle test, how many hours training has this applicant received from your organisation?  
(Please write in the box below)  

☐  

☐  

A4 For the mock 2009 off-road test, how much additional training did you provide this applicant?  
(Please write in the box below)  

☐  

☐  

SECTION B: TRAINING FOR THE MOCK 2009 OFF-ROAD TEST

B1 Did this applicant train for the mock 2009 off-road test at a DSA test centre?  
Yes ☐ 1  ➔ Go to B2a  
No ☐ 2  ➔ Go to B4

B2a How much time did this applicant spend training for the mock 2009 off-road test at a DSA test centre?  
(Please write in the box below)  

☐  

☐  

Minutes
Did this applicant have a 15 minute practice session on the off-road course immediately before their mock 2009 test?

B2b Yes □1
No □2

Did this applicant train for the mock 2009 off-road test at any other off-road site (e.g. CBT training area)?

B3 Yes □1 Go to B4
No □2 Go to B5

How long did this applicant train for the mock 2009 off-road test on other sites?
(Please write in the box below)

B4 Hours Minutes

Please indicate which (if any) of the 2009 off-road test manoeuvres:
(i) This applicant trained for at a DSA site
(ii) This applicant trained for at any other off-road site (e.g. CBT training area)
(iii) You would have liked to have given this applicant more training for
(Please tick all that apply)

B5

<table>
<thead>
<tr>
<th>(i) At a DSA site</th>
<th>(ii) At another off-road site</th>
<th>(iii) Would have liked to have given more training</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Taking the motorcycle on and off the stand/wheeling the machine □1 □1 □1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Slow manouevring (e.g. slalom, figure of eight, U-turn) □1 □1 □1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Slow riding □1 □1 □1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Controlled stop □1 □1 □1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Cornering at 30kph/19mph □1 □1 □1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Avoidance manoeuvre at 50kph/31mph □1 □1 □1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Emergency brake from 50kph/31mph □1 □1 □1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
B6  **How easy or difficult was it to teach this applicant the following manoeuvres for the mock 2009 off-road test?**

(Please circle ONE number on EACH line, from ‘very easy’ to ‘very difficult’)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very easy</th>
<th>Very difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Taking motorcycle on and off the stand/wheeling the machine</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Slow riding</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Controlled stop</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Cornering at 30kph/19mph</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Avoidance manoeuvre at 50kph/31mph</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Emergency brake from 50kph/31mph</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

B7  **If any of these manoeuvres were difficult to teach, please explain why.**

(Please write in the box below)
### B8  In your opinion, did this applicant struggle to learn any of the 2009 off-road test manoeuvres?  
(Please tick all that apply)

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Taking the motorcycle on and off the stand/wheeling the machine</td>
</tr>
<tr>
<td>(b)</td>
<td>Slow manoeuvring (e.g. slalom, figure of eight, U-turn)</td>
</tr>
<tr>
<td>(c)</td>
<td>Slow riding</td>
</tr>
<tr>
<td>(d)</td>
<td>Controlled stop</td>
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<tr>
<td>(e)</td>
<td>Cornering at 30kph/19mph</td>
</tr>
<tr>
<td>(f)</td>
<td>Avoidance manoeuvre at 50kph/31mph</td>
</tr>
<tr>
<td>(g)</td>
<td>Emergency brake from 50kph/31mph</td>
</tr>
</tbody>
</table>

### B9  Why do you think this applicant struggled?  Could this be overcome by training them differently and if so, how?  
(Please write in the box below)
B10  Some of the 2009 off-road test manoeuvres might not be covered by current 2007 training practices.

Please describe specifically what you did to train this applicant for each of the 2009 test manoeuvres listed below.

(Please write in the boxes below)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cornering at 30kph/19mph</td>
<td></td>
</tr>
<tr>
<td>b) Avoidance manoeuvre at 50kph/31mph</td>
<td></td>
</tr>
</tbody>
</table>
B11  Did you teach this applicant any particular skills (e.g. counter-steering) for the first time or in greater depth when training them for the mock 2009 off-road test than you might otherwise have done for a 2007 test?

Yes [ ] 1  Go to B12
No [ ] 2  Go to B13

B12  What were these skills?
(Please write in the box below)

B13  Overall, how confident are you that this particular applicant will pass the mock 2009 off-road test?
(Please circle ONE number from ‘not at all confident’ to ‘very confident’)

Not at all confident  1  2  3  4  5  Very confident

B14  Why are you confident/not confident that this applicant will pass the mock 2009 off-road test?
(Please write in the box below)
Do you have any other comments or observations relating to the training of this particular applicant for the mock 2009 off-road test? (Please write in the box below)

SECTION C: ABOUT YOU

Please provide your name and the name of your training school:

_________________________________________________________________________

Are you:

Male? □ 1
Female? □ 2

What was your age on your last birthday? (Please write in the box below)

□ □ Years

How long have you been a motorcycle instructor? (Please write in the box below)

□ □ Years □ □ Months

Thank you very much for your help
Updating the Motorcycle Test for 2009: exploring the training requirements for the off-road manoeuvres

This research study was commissioned by the Department for Transport to explore the training requirements for the new practical Motorcycle Test, adopted by Great Britain in April 2009 to comply with the 2nd European Union Driving Licence Directive. The objective of the new motorcycle test is for candidates to be able to demonstrate competent control of their machines over a broader and more demanding range of manoeuvres than for the outgoing test. The new test format will also standardise the conditions under which motorcycle manoeuvres are examined, bringing improvements in safety and consistency. Overall, the new test is intended to improve road safety standards for motorcycle and moped riders, who are at particularly high risk of injury or death.

A dual-approach was used: the study began by interviewing 15 motorcycle instructors from 11 Approved Training Bodies (ATBs) about the new test and their proposed strategy for training future test applicants; this was followed by assessing how 50 applicants for the outgoing (2007) test fared when completing the 2009 off-road manoeuvres in a mock test situation. DSA provided test facilities and examiners. This research took place in 2007, in advance of the new test being introduced in April 2009.

The research aimed to investigate:

i. the proportion and characteristics of riders who pass/fail the off-road component of the 2009 Motorcycle Test (having been considered ‘test-ready’ for the 2007 Motorcycle Test, and having received any additional training that their ATB believed was necessary for the 2009 test);

ii. the extent of additional training that ATBs propose to provide trainees to assist with passing the 2009 Motorcycle Test, with specific consideration being given to the training facilities available to ATBs; and,

iii. the relationship between training provisions and participants’ ability when taking the off-road component of the 2009 Motorcycle Test.

In light of the relatively small sample size, these findings can only provide an indication of training practices, applicant performance and other factors associated with the introduction of the new motorcycle test in April 2009.

Other titles from this subject area

PPR213 Assessment of current bicycle helmets for the potential to cause rotational injury. V J M St Clair and B P Chinn. 2007

PPR223 New and improved accident reconstruction techniques for modern vehicles equipped with ESC systems. R F Lambourn, P W Jennings, I Knight and T Brightman. 2007