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Creating the future of transport

A review of motorcycle training

B Sexton and M Elliott

TRL Limited

PUBLISHED PROJECT REPORT PPR 306

A review of motorcycle training

by B Sexton and M Elliott (TRL Limited)

Prepared for: Project Record: **PPAD 9/031/135 In-depth Study of Motorcycle Training**

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Executive summary

This report summarises the findings from an in-depth study undertaken during 2005 in order to obtain an understanding of how current motorcycle training operated, and to obtain views from training organisations and from 'umbrella' organisations (such as the Motor Cycle Industry Association, the Motorcycle Rider Training Association, Driving Standards Agency, The Royal Society for the Prevention of Accidents and the Institute of Advanced Motorists) on how training was being delivered and how it could be improved. Specifically the project objectives were to identify participants' views on the core training and skills required by motorcyclists and to investigate what was considered 'best' training practice.

The report presents a view of motorcycle training that takes account of material obtained from a range of project tasks, specific relevant EU projects, together with the team's knowledge of the general literature and research thinking on driver/motorcycle training, testing and licensing.

In-depth interviews were conducted with a range of motorcycle training organisations, where the trainers were encouraged to identify the skills that they taught, the techniques they used and time required on different aspects of training. In order to obtain a comprehensive view of current motorcyclist training, a postal survey was sent to motorcycle training organisations to ask similar questions, albeit in a structured way based on the results from the in-depth interviews.

An observational study was also conducted which followed the training of new riders. This involved the use of a TRL motorcycle (Yamaha Faser with video and sound recording capability) and an expert rider which enabled trainees to be followed in safety while they were receiving instruction, and provided a useful mechanism to gain insight on the training approach being employed.

The results from the different studies were discussed in meetings with 'umbrella' organisations, to obtain their views. The report discusses ways in which some of the issues in motorcycle safety might be addressed by means of training and related interventions. It makes suggestions for good practice when delivering training and also mentions some of the other changes to the testing/training/licensing system that could be considered as ways of improving motorcycle safety. These include the following possibilities:

- Improvements to pre and post-test training content and delivery
- Scope for inducing better training by changing the testing requirements
- Make CBT[1] span more than one day
- Making some aspects of post-CBT and/or post-test training compulsory
- Encourage longer training periods for DAS[2] trainees, perhaps by introducing a log-book
- Making changes to the licensing system

(It should be noted that after completion of the research for this study the motorcycle practical test was changed in March 2009 to include a non-public road test as well as the on-road test. DSA also launched a Voluntary Register for Post Test Motorcycle Trainers (RPMT) in February 2007 and an Enhanced Rider Scheme (ERS), a post-test voluntary training scheme linked to insurance discounts in November 2007. DSA (2009) are also developing a 'Competence Framework for Moped and Motorcycle Riders', which will be used to develop a syllabus, educational and learning materials, testing and assessment protocols, standards assurance for professional riding instructors and as the basis of a separate Competence Framework for Motorcycle Trainers.)

[1] Compulsory Basic Training - All learner motorcyclists and learner moped riders are required by law to hold a valid CBT certificate of completion.

[2] Direct Access Scheme - Direct access is a scheme which allows a person over the age of 21 to take a test on a machine of at least 35 kW (46.6 bhp) and a pass allows the riding of any size of bike.

1 INTRODUCTION

This report summarises the findings from a project which conducted an *In-Depth Study of Motorcycle Training* during 2005. The main objectives of the study were to obtain an understanding of how current motorcycle training operated, and to obtain views from training organisations and from 'umbrella' organisations (such as Motor Cycle Industry Association, Motorcycle Rider Training Association, Driving Standards Agency (DSA), The Royal Society for the Prevention of Accidents etc.), on how training was being delivered, what was considered good practice and how motorcycle training could be improved.

The report presents a view of motorcycle training (from interviews, surveys and observations obtained during 2005) that takes account of material obtained from a range of project tasks, certain relevant EU projects, and the team's knowledge of the general literature and research thinking on driver/motorcycle training, testing and licensing. It discusses ways in which some of the issues in motorcycle safety might be addressed by means of training and related interventions. Due to the nature of the study, some of the reported findings are necessarily anecdotal and the ideas that emerged from participants for improving rider training and testing are suggestions for consideration, i.e. they are not authors' recommendations.

(It should be noted that after the research for this study had been completed the motorcycle practical test was changed in March 2009 to include a non-public road test as well as the on-road test. DSA also launched a Voluntary Register for Post Test Motorcycle Trainers (RPMT) in February 2007 and an Enhanced Rider Scheme (ERS), a post-test voluntary training scheme linked to insurance discounts in November 2007. DSA (in 2009) are also developing a 'Competence Framework for Moped and Motorcycle Riders', which will be used to develop a syllabus, educational and learning materials, testing and assessment protocols and standards assurance for professional riding instructors and as a basis of a separate Competence Framework for Motorcycle Trainers.).

Detailed findings from the main tasks carried out within this project are presented as annexes to the report.

2 'WHOLE-LIFE' RIDER IMPROVEMENT

Presented in Figure 1 is a summary of the important stages that occur with regard to motorcyclist training and education. The top of the diagram represents the beginning of a potential motorcyclists' riding career. Note that the term "potential motorcyclist" is used here because the early, pre-school and school, stages are unlikely to focus specifically on motorcycling. Rather, important skills will be developed at those stages which can later impact on motorcycle riding. For example, parents' attitudes to road safety in general (expressed explicitly or implicitly through their own actions) are likely to have an impact on the development of children who may later learn to ride a motorbike, and those early parental influences are likely to have some influence upon what type of rider those people turn out to be.

In addition, road safety training already occurs within schools (e.g. by Road Safety Officers) in order to help promote desirable attitudes and skills (including road crossing and cycling proficiency skills). It is speculated that many of those skills are likely to be transferable to motorcycling (e.g. parallels between riding a push bike and a motorcycle can be drawn and nurturing road safety orientated attitudes is likely to have a desirable impact on the safety of any future motorcycle riding).

Progression towards the bottom of the diagram represents progression towards becoming a 'safe' and competent rider. At each stage of Figure 1 a number of issues need to be considered:

- The skills, knowledge and attitudes to be learned / developed (the objectives of training)
- The learning / delivery methods to be used,

- The trainers (who should they be?)
- Duration of training and distribution over time
- Trainees' motivation (to take training in the first place as well as motivation while training)
- Voluntary vs. Compulsory training

The remainder of this document attempts to address these issues. CBT (Compulsory Basic Training) and pre-CBT stages are not addressed in detail because they were outside the scope of this study. However, we acknowledge that those early stages are important. Road safety skills, knowledge and attitudes can be nurtured during those early stages and motorcycle training should in many circumstances utilise those skills and the learning that has taken place before completion of CBT in order to improve its likely effectiveness (i.e. to aid the development of safe and competent riders). It should be noted, however, that certain types of pre-rider (or pre-driver) education may possibly run the risk of encouraging young people to take up driving or motorcycling earlier than they might have done. This could result in increased accident risk associated with very young riders or drivers, longer 'at risk' driving or riding careers, and people taking up motorcycling who might otherwise not do so.

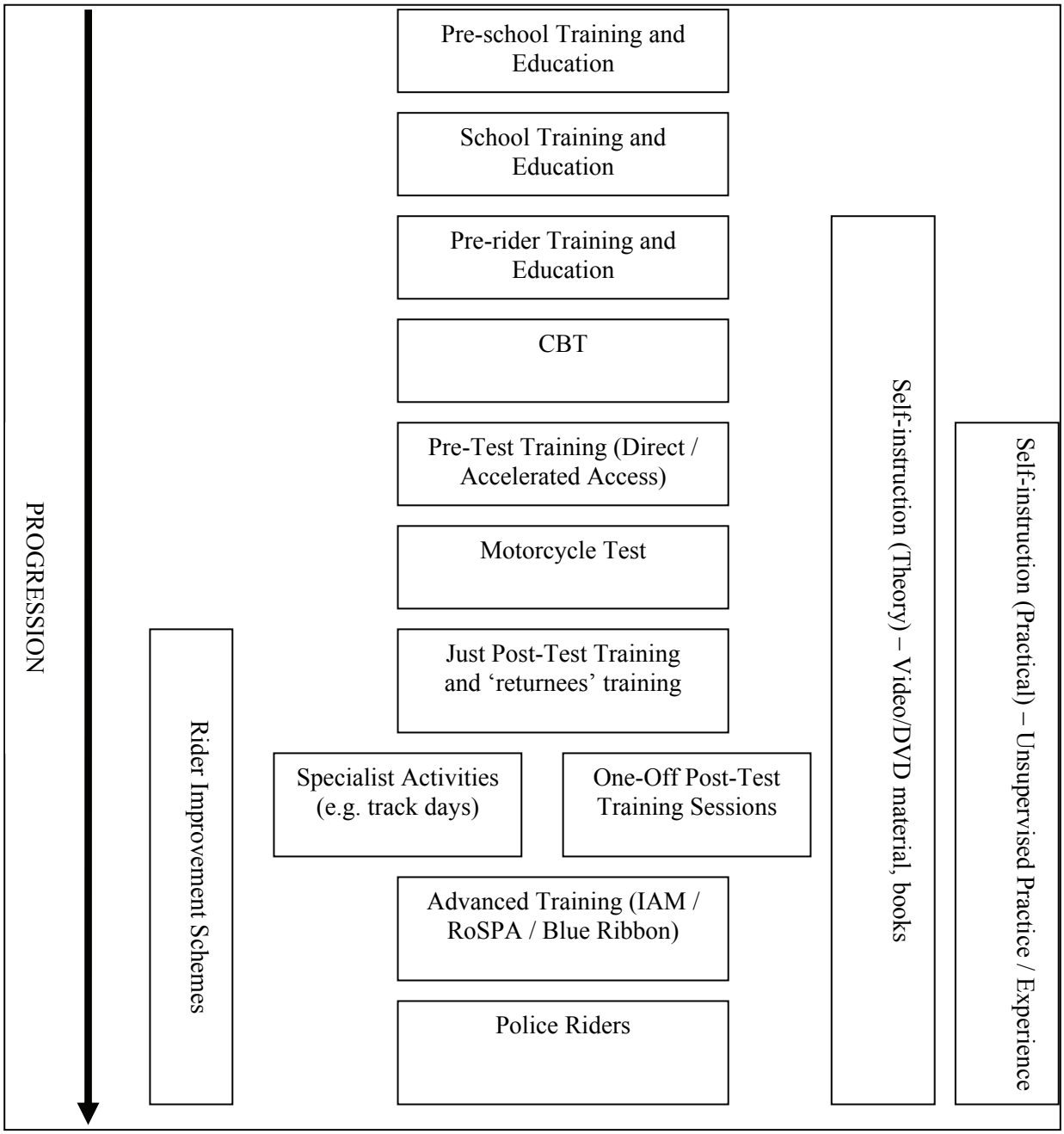
As CBT was excluded from the DfT/DSA specification for this project the main interest focused on improving (a) pre-test (post-CBT) training, and (b) training that is delivered, or could be delivered, to substantial proportions of riders after they have passed the test.

Given the effects of age and experience on motorcyclists' accident liability (Sexton et al, 2004) it is clear that a strong focus of such training should be on young and/or inexperienced riders – that is, training that could take place before or soon after the test. Training delivered later in the riding career also needs to be considered, but if we wish to maximise the potential impact on accidents, the main interest needs to be in training that is going to be taken up by a substantial proportion of riders.

It would appear that there are three main groups of riders who potentially have different training needs and perhaps need to be considered separately, because they exhibit different challenges. These are:

1. Young riders who pass their CBT but possibly have no intention of ever taking a motorcycle test, and probably use their bikes (scooters / mopeds) in an urban environment.
2. The riders who take a Direct Access course in a short period (perhaps in just 4-days) and then buy a powerful larger capacity bike.
3. Riders who have just passed their test but are still very inexperienced. (People returning to riding after a long break may also be included within this group: they have ridden previously but perhaps not in current traffic conditions or on powerful motorcycles).

Figure 1. Important stages of motorcyclists' development: 'Whole-life' approach



3 INFORMATION SOURCES

Previous work conducted within EU projects, such as GADGET, ADVANCED and BASIC provided a good starting point for the present project. These are complemented by the results from the interview survey, the observational study and the trainer questionnaire survey carried out under the project. Sections 4 to 7 of this report make use of information from all of these sources and more details are given in the Annexes.

3.1 GADGET (Guarding Automobile Drivers through Guidance Education and Technology)

The GADGET project objective was to assess the effects of traffic safety measures on driver behaviour and to analyse the influence of:

- in-car safety devices,
- various road environments,
- education and training programmes,
- safety campaigns, and
- legal measures (including enforcement)

The GADGET project (Seigrist, 1999) generated a matrix which defines four different levels of driver behaviour. Each of these levels can be considered in terms of the general knowledge and skills, knowledge of risk increasing factors and self evaluation skills needed for safe driving – thus generating the 4-row by 3-column GDE matrix (Goals for Driver Education). The matrix is reproduced in Annex A. The application of this matrix to driver training and education has been further discussed by Hatakka et al (2002). The matrix leads to the view that most current training and testing concentrates on the basic knowledge and skills needed at the lower levels of behaviour (vehicle manoeuvring and driving in traffic) and that much more attention needs to be given to drivers' ability to recognise and deal with risk-increasing factors and self-limitations, especially those relevant to the higher levels where journey goals and personal characteristics and motivations come into play. Its application to driver/rider testing has been discussed by Baughan and Keskinen (2005).

3.2 ADVANCED

The ADVANCED project (Bartl et al, 2002) was a study of post-licence driver and rider training. The report describes and analyses voluntary, post-licence training and makes a series of recommendations on how to improve such training. The report deals with the theoretical context, in terms of research into post-licence training and current knowledge on adult learning.

It describes the typical types of courses available across Europe (and elsewhere) in terms of location, programme content, methods, trainers and other forms of quality assurance. In the light of practical experience and research data, the report then draws some tentative conclusions on how and to what extent post-licence training currently meets the needs of the drivers and motorcyclists who attend. The ensuing recommendations section offers practical advice for policymakers, course providers and trainers on how to make some fundamental improvements in training and its delivery.

3.3 BASIC

The objective of the BASIC project (Hatakka et al, 2003) was to enhance traffic safety by providing comprehensive information concerning new basic training methods and their possibilities to decrease accident risk amongst drivers. Therefore, a description of new basic driver training methods applied in EU and an analysis concerning factors of the various models which are most effective were elaborated. The aim of this project was an evaluation of "new" basic driver training models (Category B) and to give guidelines for recommendations concerning basic driver training models.

BASIC - project recommendations: requirements of an ideal educational system

- Clear goals and contents for training
- Enough feedback to improve behaviour and to learn

- Theoretical and practical training supporting each other
- Possibility to get enough experience
- Valid environment to practise necessary skills
- Long enough learning period that makes consolidation of skills and knowledge to the memory possible
- Learning climate favourable for safety

3.4 Interview survey of motorcycle trainers

As part of the present project, TRL commissioned EPR (Enterprise, Planning and Research Ltd.) to undertake a programme of depth interviews with motorcycle training providers. The main objective of this stage of the research was to discover how trainers structure their courses and what they consider they achieve. Specific research objectives included:

- to identify the skills being taught
- to describe the training techniques being used and the overall approach in terms or classroom v practical elements
- to describe the overall timing of courses and the time spent on different elements

All interviews were undertaken in person by EPR executive interviewers. Respondents were recruited from sample lists provided by TRL. The achieved sample structure was 20 trainers with 6 in the North West, 2 in the West Midlands, 8 in the London/Essex area and 4 in the Thames Valley. The training focus for these organisations was 4 CBT, 10 pre-test Direct Access Scheme (DAS) and 6 post-test/advanced. Interviews took place at respondents' places of work and these included motorcycle dealerships, training premises, cafés and private homes. A report on the interview survey is given in Annex B and reflects EPR findings and observations derived from their depth interviews, it should be noted that EPR had no brief other than to interview and record their findings. Given that many motorcycle trainers have strong views (especially about the testing agency - DSA), then the EPR report is necessarily strongly influenced by the trainers and will not always reflect DSA/DfT's or the 'umbrella' training organisations' view of rider testing.

3.5 Observational study

The project included an overt observational/participatory study to capture in-depth information on the courses. This study involved motorcyclists (at the appropriate level for the course being followed) taking part in the course and arranging for the delivery of the course to be observed by a TRL rider.

TRL commissioned an ex-Police Class 1 rider to ride a Yamaha Faser with video and sound recording capability. He had also been involved in Honda MAC and other motorcycle training. His expertise was utilised to obtain quality observational data from this task some of which was videoed with comments. He produced a written report summarising his observations and personal considerations for rider training (Annex C). Trainee riders with three motorcycle training organisations were observed on DAS courses, one of which did include some CBT. The organisations were based in Woking, Reading and Taplow. Some riders were observed over more than one day, and at different stages of their training. Eight riders were observed altogether in this study. Video of the on-road and off-road training received together with commentary by the TRL rider provide an interesting record of this part of the study. The summary report on the observational study is provided in Annex C.

3.6 Questionnaire survey

A quantitative postal survey of UK motorcycle training providers was undertaken. The questionnaire was based primarily on the findings of the exploratory interviews, the observational/participation study and existing TRL knowledge relating to training content and

practice, and took account of the questionnaires already used in the European study "ADVANCED". A draft version was used in the observational/participation task and was refined as a result of the findings.

The survey asked about all types of pre-test and post-test training undertaken and about the specific objectives and qualifications associated with each course. It also asked about recruitment strategies and provides detailed information on advertising, recruitment, course content, course objective and delivery practices of current motorcycle training courses available in the UK.

The questionnaire was sent to all motorcycle trainers in GB who had CBT and/or DAS accreditation (from DSA lists), plus all those post-test trainers who could be identified from internet web-sites. The questionnaire was sent to about 670 training organisations, but the response rate was poor and only 125 responses (19%) are available for analysis. The poor response rate may be, in-part, a result of trainers having completed a questionnaire for the BITER scoping study on motorcycle training (BITER, 2003) in the recent past and not being inclined to complete a further questionnaire which was also asking about training. However, there is no concrete evidence to support this view. It is a disappointing response rate and does raise the question about the representativeness of the achieved sample.

3.7 Consultative discussions

Two meetings with industry stakeholders (two experienced trainers, the Motor Cycle Industry Association, The Royal Society for the Prevention of Accidents, the Institute of Advanced Motorists and the Driving Standards Agency) were called in order to discuss various aspects of motorcycle training. Discussions with MRTA (Motorcycle Rider Training Association) and with DSA (Cardington) also took place and contributed to the findings and recommendations presented here.

4 PRE-TEST TRAINING

4.1 General

Generally it was felt, from the consultative group as well as from the surveys, that there was a need for more pre-test rider training in order to reduce the need for further training after the test has been passed. Many of the consultative group felt that the standard of riders immediately post test was not currently good enough. They felt that the current system had produced a rider who had the necessary control skills for controlling a motorcycle in today's traffic and who was capable of passing the riding test but who still required further training to be safe and fully competent, particularly with respect to attitudes and risk perception/acceptance. Further, it was felt by some trainers that some post-CBT candidates did not display the standard required for them to have earned their CBT.

Hence, it is suggesting that the current system may benefit from a review, which is in-part a function of this study. (In practice, since this study was undertaken, a comprehensive review and tightening-up of CBT has taken place and a DSA Register of Post-test Motorcycle trainers created – both of which help to address some of the concerns expressed. DSA are also developing a competence framework for moped and motorcycle riders).

It should be noted what is being reported here are views of the participants in the consultative group and surveys. Such views do not, in themselves, constitute scientific evidence, and are of course open to challenge from those with alternative views. It is also the case that not all participants in the project agreed with the views summarised above. If novice riders' skills, knowledge, attitudes and risk perception/acceptance do need to be improved, it is clearly advantageous to achieve this early in the riding career, and as much of it as possible before the practical test. This suggests that there should be some mechanism within the testing/training/licensing system that ensures riders reach a higher level of competence before they take their test, and that the test should be capable of

determining whether this level has been reached. This may require a change, or at least a tightening-up of the current system, and is discussed below.

It was appreciated in the consultative group that there are some aspects of riding that cannot easily be taught pre-test, and that experience levels are low pre-test. More experience may be necessary to get maximum value from some aspects of training (and the training itself may need to be improved, perhaps with less of a focus on control skill). There is also a judgement to be made about just how much additional or improved training, or just how much of an improvement in skills, knowledge and attitudes, is really necessary before a rider takes his test. It was generally felt that, even with improvements in pre-test training that there will still be some need for post-test and further, more advanced, training – albeit this will depend to a degree on the quality of the training received..

4.2 Key Skill Set

The required skills and abilities of riders to be developed in pre-test training will differ in the level of competence from post-test, in-part because the trainees taking pre-test training are new and inexperienced motorcyclists. They are still developing basic control and procedural skills. Post-test training encompasses a whole range of potential development including training for new riders who have just passed their tests as well as for more experienced riders wanting to improve their riding skills or take a higher level of riding qualification. However, trainers need a generic set of abilities and teaching skills to facilitate effective learning. Trainees need to develop ability across the full set of skills linked to safe riding a powered two-wheel vehicle. Their post-test progress will, to a degree, depend on the quality of the trainer.

Pre-test (but post-CBT)

The DSA publication 'Motorcycle riding – the essential skills' (DSA, 2005) is the official guide for all UK motorcyclists – however experienced. This together with 'The official DSA guide to learning to ride' (DSA, 2009) provides the main sources for what is required and expected of new motorcyclists who are preparing to take their full-licence test. They thus dictate, to a large degree, what is taught to new riders. To encourage and inform trainees and trainers, DSA suggested that they could perhaps publish a comprehensive syllabus and workbook, thereby setting standards for training and instructors and encouraging incentivised training interventions – which could apply to both pre and to post-training. (In fact, DSA (in 2009) are developing a 'Competence Framework for Moped and Motorcycle Riders', which will be used to develop a syllabus, educational and learning materials, testing and assessment protocols and standards assurance for professional riding instructors and as the basis of a separate Competence Framework for Motorcycle Trainers. Competence, in this context, refers to the ability and skill to: (i) prepare the motorcycle and passenger for the journey, (ii) guiding and controlling the motorcycle, (iii) using the road in accordance to the 'rules', (iv) riding safely and efficiently and (v) reviewing and adjusting riding behaviour over lifetime.)

The minimum test requirements are, of course, specified under EU legislation and define what must be tested. However the actual test structure and requirements also influence pre-test training. The DSA web-site description (in 2006) includes the following information on the practical motorcycle test[3]:

Pre-test checks

Vehicle Safety Check Questions
The candidate should be asked 2 machine safety check questions before moving away.

After the usual pre-test preliminaries e.g. licence and identification check the examiner will help the candidate with the fitting of the radio and earpiece.

[3] Note: web sites are dynamic in nature, and as such the content repeated here will have been updated – especially since the introduction of the 2-part modular practical test in 2009.

While accompanying the candidate to the machine the examiner will explain how the test will be conducted and how the radio equipment works.

The law requires anyone riding a motorcycle, scooter or moped, with or without sidecar, to wear protective headgear securely fastened. The test cannot therefore be conducted unless the candidate is wearing properly secured protective headgear.

During the test specific manoeuvres must be carried which include:

Emergency Stop exercise
An emergency stop is given on every motorcycle test and can be given at any time during the test. The candidate will be told the route to take and the examiner will demonstrate the signal that will be given.

Wheeling / Stand exercise
The candidate will be asked to position the machine alongside the kerb and put it on its stand, then take the machine off the stand and wheel it across the road in a `U' turn. (Either a centre or side stand is acceptable, but a machine without a stand is not suitable for the purposes of the test).

U-Turn exercise
Via the radio, the examiner will ask the candidate to ride the machine back across the road. The candidate will be asked to move off from a parked position and to turn the machine around to face the opposite way, within the road width.

Slow ride exercise
If the candidate has not had the opportunity to demonstrate their ability to control the machine at slow speed e.g. at junctions, they will be asked to ride as if in slow-moving traffic as a separate exercise.

After the practical part of the test the candidate will be asked a question on `balance when carrying a passenger'.

The Modular Test – introduced in 2009, involves:

Module one

Module one includes the following specified manoeuvres and generally takes around 20 minutes to complete:

- *wheeling the machine and using the stand*
- *doing a slalom and figure of eight*
- *cornering, hazard avoidance and controlled stop*
- *U-turn*
- *a slow ride*
- *the emergency stop*

There is a minimum speed requirement of 50 kilometres per hour (approximately 32 miles per hour) for the hazard avoidance and emergency stop exercises.

Module two

This is the on-road module and typically takes around 40 minutes. This module includes the eyesight test, the safety and balance questions and the road riding element and covers a variety of road and traffic conditions.
Candidates are asked to carry out normal stops, an angle start (pulling out from behind a parked vehicle) and, where possible, a hill start. The examiner will normally follow on a motorcycle, using a radio to give directions.

The test focuses very much on basic skills for manoeuvring and controlling the motorcycle and for riding in the types of traffic situation encountered during the test, (which also applies to the modular test introduced in 2009). The focus (in GDE matrix terms) is 'knowledge and skills in vehicle manoeuvring' and, to some extent, 'mastery of traffic situations'. There is little of relevance to the upper two levels of the GDE matrix.

The skill sets required to be trained (pre and/or post-test to varying degrees) as given in Tables 1 and 2 are taken from the DSA material – i.e. The Official DSA Guide to Riding, and other sources, e.g. Roadcraft. It is recognised that these tables are not definitive but are an attempt to identify the more important skills and abilities which may be assessed or are appropriate for perhaps greater focus (Table 2) during training.

Table 1 Skill set which is currently assessed

Skill or ability for training and testing	**Requirement (not necessarily exhaustive)**
Basic control skills	Moving-off, braking, steering, hill starts – accelerator, brake and clutch control
Slow speed manoeuvring exercises	Fine control of steering, throttle, brake & clutch – looking where want to go, no-feet down, tight turns through cones
Road positioning – for right turns	Take-up and maintaining position prior to turn, timing, shoulder/mirror checks, use of lifesaver check
Road positioning – for left turns	Take-up and maintaining position prior to turn, timing, shoulder/mirror checks
Road positioning – on roundabouts	Take-up and maintaining position prior to turn, timing, shoulder/mirror checks, use of lifesaver check
Negotiating bends	Take-up and maintaining position prior to bend, maximise view, not compromise safety
OSM (Observation, Signals, Manoeuvre)	Consistent and appropriate use
Overtaking	Position for overtake, execution of overtake, safety considerations
Judging safe braking distances	Evidence of planned and controlled braking, no skidding
Maintaining safe separation distances	Maintain 2-second rule when moving, not too close when stopped to allow an overtake if vehicle in-front stalls
Lifesaver checks (final observation before manoeuvre)	Use of lifesavers on right turns, roundabout exits etc.
Preparation for riding (e.g., machine checks, clothing)	Demonstration of basic machine checks, wearing appropriate clothing etc.
Anticipating other road users' behaviour	Awareness of other road users and anticipation of likely actions – not getting stuck because of poor anticipation
Forward planning	Demonstration of smooth ride, looking ahead, scanning

Road traffic laws and regulations	Knowledge of Highway Code and application
Awareness of general risks of motorcycling	Aware of relative risk when riding compared to driving, vulnerability of bikes, increase in skidding risk when wet, and of slippery surfaces especially on corners
Identifying hazardous situations	Aware of appropriate position on road for being seen and for seeing, adapting position in response to spotting hazard, e.g. junction, pedestrian, corner, manhole cover etc.

Table 2 Areas of the syllabus that require a greater focus

Skill or ability for training	Additional focus
Counter-steering (or positive steering)	Understanding of concept, application (?) – it is recognised that this is a contentious topic, which is not necessarily explicitly taught, i.e. it depends on the perceived training need
Control skills for higher speed riding (e.g. steering, use of brakes and gears)	Application of brakes (front then rear), use all fingers, demonstrate acceleration sense which is assessed during the practical tests and is covered in The Official DSA Guide to Riding
Filtering	Use of filtering in stationary traffic, slow moving traffic, awareness of hazards which is assessed where possible during the on-road practical test and is covered in The Official DSA Guide to Riding
Effects of other people on riding behaviour (e.g. riding in groups)	Awareness of riding within own limits and not being sucked into keeping up with better riders, peers or competing
Possible effects of riders' condition in relation to safe riding (e.g. tiredness, alcohol, drugs, mood, being pre-occupied, etc.)	Awareness of potential effects on concentration and riding of being tired, of alcohol, drugs and of mood, (this is assessed in the Theory Test – and is covered in The Official DSA Guide to Riding)
Awareness of journey related characteristics in relation to safe riding (e.g. busy roads, fast roads, traffic density)	Taking account of increase in hazards in busy traffic situations, more scanning etc., which is assessed during the on-road practical test and is covered in The Official DSA Guide to Riding
Awareness of weather related characteristics in relation to safe riding (e.g. wet roads and braking or cornering, fog and visibility, etc.)	Adaptation of riding in adverse weather conditions, lower speed, leaving bigger gaps to vehicle in front, use of both brakes (60:40), planned and controlled braking - which are assessed during the on-road practical test where possible and covered in The Official DSA Guide to Riding (sections on weather, separation distance and braking)
Impact of effects of the riders' own personal characteristics in relation to safe riding (e.g. aggression, thrill seeking, posing, etc)	Awareness of how personal characteristics may influence riding style

4.3 The learning / delivery method

The ADVANCED project produced a comprehensive view of how trainers should operate and what trainers should aim to achieve. Some of the ADVANCED recommendations are reproduced in Annex D. Though the ADVANCED project concentrated on post-test training, these recommendations generally apply also to pre-test and post-test training.

There will be specific issues in pre-test training which need to be addressed. For example, trainees will by definition be inexperienced, they may also be nervous and this will vary between course participants.

Some trainees may just want to gain their full-licence and resent having to take training, resent having to pay and may not be receptive to any 'safety messages'. It is thus essential for trainers to take account of these confounding issues and to handle different trainee 'types' appropriately.

Table 3 (in alphabetical topic order) summarises good practice in most aspects of course delivery as distilled from the ADVANCED project recommendations – see Annex D - and is suggested as a starting point when considering 'best practice' for either pre or post-test training.

Table 3 A Suggested 'Good Practice' Framework (adapted from the ADVANCED project)

Topic area	Objective	Requirement
Assessment	To have a basis for assessment on all the skills and attributes being taught	There should be a reference standard. Trainees should be assessed on a regular basis against the required standard for the specific skill or attribute
Awareness	Awareness of trainee state - in terms of ability level, difficulties, mental	To demonstrate that the trainer is aware of the trainees needs, are they tired, are they struggling, what are they capable of etc.
Breaks	Breaking up the course	To build in breaks; these can be used for de-brief, question time or just relaxing from the course. Facilities for and planning of breaks should be evident. Breaks are needed because training can be very intensive and demanding on concentration levels – taking a break helps.
Content	Defining the course	There should be a written course specification. It should cover the topics to be covered, indicate the level of competence being trained, the approximate time spent on each topic area.
Facilities	Defining the facilities	The facilities available should be appropriate for purpose. If classroom instruction is involved, then the facility should be available. Hence it is likely that classroom / off-road / on-road / refreshment facilities will be needed – depending on the course.
Feedback	Defining feedback	Feedback should be structured, it should be constructive and positive, it should take place close to the time that the skill/ability was being trained.
Flexibility	Flexibility in course delivery, to be able to adapt the course according	The course should allow flexibility in order to take account of different demand

	to identified needs of the trainee(s)	or requirements of trainees. To actively assess the needs and requirements of trainees and to have a course structure that can be adapted accordingly.
Outcome	Define an 'outcome' measure	The success of the course can be determined by a defined outcome measure. In pre-test training this may be the achievement of passing the practical riding test. In post-test training it should be an assessment against a pre-defined standard for the level of training being taught.
Ratio	Number of trainees to trainer	The number of trainees should reflect the demands of the course. Sometimes 1:1 is necessary especially if the trainee has a problem, sometimes it could be too intense. However, some aspects of non public road pre-test training can be handled with higher ratios.
Record keeping	To keep track of trainee progress and provide mechanism for feedback	A formalised and structured system for recording the trainees' standard and progress against some pre-defined criteria. This would be used to keep track of progress, to help identify weak areas, to remind the trainer when the trainee returns on the next day of the course. As a basis for producing a report. A log-book for trainees should be available which can be signed-off by the trainer for each level achieved for each skill being trained or assessed.
Reporting	To provide record for trainee	A record of the trainee development and standard having completed the course. It should include written comment as well as an assessment against pre-defined criteria.
Structure	Define structure of course	The outline structure of the course, how and where it will be taught (classroom / off-road / on-road), what the trainee should expect in terms of feedback, reporting etc.
Trainer	Skills and experience of the trainer	Trainers should demonstrate that they have the necessary patience, commitment and teaching ability combined with experience as a rider. They should possess advanced riding qualifications, and should have attended refresher courses perhaps every 5 years. They should always be enthusiastic about what they are training or demonstrating.

The requirements column identifies specifics which could be checked when evaluating a course. It may thus be tenable to assess existing courses against this proposed standard and perhaps to

evaluate their success rate (albeit this is in practice very difficult) and so identify which topics / objectives are more important.

The depth interviews carried out in this project found that at most levels, motorcycle training was carried out in a holistic manner and is predominantly based around practical riding experience. The emphasis throughout was on demonstration, practice & feedback rather than on theoretical or academic approaches. As a consequence, most major topics such as 'dealing with traffic' were reported to be taught not as individual subjects but necessarily integrated into practical training sessions.

A further defining characteristic is the high level of adaptation required for individual students; trainers reported taking as long as is required for a student to attain a certain skill rather than spend a prescribed amount of time on that topic. Even with CBT, which has a clearly defined course structure and content, a great deal of adaptation was reported to be needed to ensure that students meet the required standard to attain their provisional licence. There was throughout a sense that trainers are not so much teaching courses but providing training at the appropriate level for each student, i.e. they report needing to tailor training to individual trainees (which the ADVANCED project would associate with 'good practice').

In the depth interviews, motorcycle trainers emphasised the importance of being able to adapt training to individuals in this way, and of the implications this has for the personal skills and qualities of the trainer:

- considerable experience and expertise in motorcycle riding
- the interpersonal and communication skills required to teach practical motorcycle skills
- the capacity to recognise and understand rider objectives, capabilities & short-comings
- the skill of tailoring training to the needs and objectives of specific riders
- the ability to integrate theoretical elements into practical teaching at an appropriate time and within a suitable context
- at advanced level, the ability to teach a system or style of riding so that riders can apply their learning pro-actively, not reactively

These findings, which are really a distillation of what interviewees considered to be best practice, are consistent with the suggestions for 'best practice' as given in Table 3.

Example of a training scheme

A training scheme which covers at least one of the 'new' elements in Table 2 has been implemented in a 'rider risk reduction' course. At time of the study, this was being offered to some motorcycle riders instead of a fixed penalty notice and penalty points, after they have been stopped by the police for committing a traffic violation. The course content was written by Dr Cris Burgess from Exeter University's School of Psychology. The primary aim of this course is to give riders a greater sense of their vulnerability and the limitations of human beings.

Although this course was being taken (in 2005) by offending riders as a means of educating them on the risks associated with riding, it could be adapted for use within a pre-test or post-test training courses. It is particularly attractive as it attempts to deal with aspects of training at the higher levels of the GDE matrix – levels that are largely neglected in current training. It should be noted that a small-scale evaluation of this course was undertaken by Dr Burgess and received a Prince Michael Road Safety Award Commendation in 2006. However, details of the evaluation are not known and so perhaps further work is needed to evaluate the effectiveness of this course in terms of accident and/or traffic violation reduction.

4.4 Use of log books

Log books could be a useful 'tool' for recording training progress and helping to ensure that riders are taught the skills needed to safely control and ride their motorcycle. A log book could record journeys made and thus provide a measure of experience gained; it could also help ensure that by the time they come for test riders have ridden a minimum number of miles and on a variety of different road types. The log book could also be used post-test as a way to encourage further training to be taken and to record that it had been.

How successful they would be in practice depends on whether motorcyclists and trainers choose (or are required) to use them. Log books are used in other activities that are similar to motorcycling in that skill is being used to control potentially high levels of risk. Here, the documenting of progress and accumulating experience can become a source of pride and a powerful way of encouraging the student to seek the necessary training and experience. It may be that such effects could be evoked in a substantial proportion of motorcyclists and lead to improvements in the take-up of training as well as in the training itself.

4.5 The trainers

Motorcycle trainers generally were reported to be experienced riders who had a keen interest in being involved with training. Some training organisations have a high proportion of ex-police riders who are themselves highly trained and experienced riders - though some participants indicated that not all ex-police riders necessarily make good instructors. There are some motorcycle instructor training courses, but many trainers progress through on-the-job training. There are NVQ courses which lead to an accredited qualification – but the number of such qualified instructors is thought to be small. Results of the recent DSA consultation on a voluntary register for post-test trainers are relevant to the question of 'who should train?'.

4.6 Duration of training

At present people can pass their practical riding test after around 4 days of pre-test training (Direct Access). Although scientific evidence is lacking, four days may not be an adequate period to progress from never having ridden a bike to being able to ride as powerful a bike as can be bought. Certainly this was the view of some of the consultees to this project, and the fact that some trainers also run courses tailored to the needs of the trainee that take more than 4 days reinforces the view. It is difficult to say how much training is needed, and over what period of time the training should be spread out to ensure the necessary skills are acquired to a sufficient standard, and of course there will be individual differences. Further empirical research is needed to investigate this issue. Potentially, an experiment could be conducted in which the duration of pre-test training is manipulated, e.g. by offering riders incentives to take more training, and the effects on riding test performance and subsequent safety measures (attitudes, reported behaviours, self-reported accidents) investigated. In addition, it would be informative to quantify the durations of DAS training.

The above discussion illustrates one of the limitations of practical testing. If testing is relied upon as the main means of influencing pre-test learning, this learning will tend to focus on what is necessary to pass the test, and this may not be sufficient to produce fully competent riders. Ways of ensuring that training has a broader focus need to be found – and this will probably involve both changing the training curriculum and supporting these changes with a broader testing process.

4.7 Trainees' motivation

Post-CBT riders who intend to go on to take the licence test may or may not choose to have training. The amount and type of training they choose to have will be dominated by the requirements of the test and of the DAS/AS systems. From the interviews, postal surveys and consultative discussions held during this project, there was a strong view that trainees will only take and pay for the training

that is required in order for them to pass their test. The training is thus largely dictated by the requirements of the test-system, and different types or amounts of training could be induced by changing these requirements.

There were several comments from participants that some riders never intend to take their test, they simply want transport until such time as they can learn to drive a car and tend to ride 'twist and go' scooters/mopeds. Some of these young riders were thought to pose a problem since, if they never intend taking a test, there are no test requirements (after passing their CBT) to induce them to take training. It is not clear how much of a safety problem these riders represent in terms of numbers of riders, accident numbers and accident rates, and investigating this question lay outside the scope of the project. Also, they are not the only people who ride unsupervised, and without further training, for some time after taking CBT. Nevertheless this group does point up the problem of how to motivate people to take training when the provisions of a test cannot be relied upon to do so.

It may be that voluntary take-up of post-CBT training could be stimulated by educational means – perhaps delivered via schools, the media, manufacturers, suppliers and insurers. Insurance discounts and training vouchers 'purchased' with motorcycles are another possibility. The idea of allowing shortcuts through the provisions of a graduated licensing system for people who have taken approved training is generally frowned-upon in the research literature since it can worsen safety rather than improve it. A logbook might be useful, and is an idea returned to later in this report. It is not possible to make authoritative recommendations for improvements here because the effectiveness of potential measures has not yet been established. Indeed, to make a substantial impact on the take-up of post CBT training it may be necessary to make it compulsory or to introduce a substantial incentive – though again the feasibility and effectiveness of such measures would need further investigation, (see the following section).

In principle, at least a partial alternative to using post-CBT training might be to reduce the need for it by improving the 'output' from CBT – i.e. improving CBT itself. A related possibility might be to introduce a new test which needed to be passed within a certain period before unsupervised riding is permitted, though of course the usual difficulty of relying on a test to govern pre-test learning and produce safe and competent riders would still apply.

A further consideration with all compulsory requirements is that they may push riders into ignoring them and riding illegally.

4.8 Voluntary vs. Compulsory training

As was stated above, the general view of those consulted during this project is that trainees only take training that they have to – they are not inclined to pay for more than they need in order to pass the test. This suggests that either the test coverage and/or standards need to be improved so as to induce learners to achieve higher levels of competence, or that minimum training levels should be encouraged further or made compulsory. As mentioned in section 4.4, one possibility here would be to have log books in order to record received training which would need to be 'signed-off' by an accredited trainer before the test could be taken

Of course, good evidence on the effectiveness of training may be needed before compulsion could be introduced – and this is problematical. There is in fact very little evidence available to show that training is effective in improving safety (though the hope is that improved training and also a higher quality of training would be effective). Also, it is difficult to produce good evidence on the link between training delivery, content and/or standards and safety without being able to train large numbers of people in properly designed experiments – a circumstance rare in the research literature and difficult to achieve in practice.

5 THE MOTORCYCLE TEST

Many trainers consulted in this project believed that riders who present themselves for post-test training are often not up to an acceptable standard – i.e. that riders are passing the practical test when they do not have adequate skills to ride safely[4]. Typically, this was put down to poorly delivered CBT, and/or too much encouragement to take Direct Access training in a very tight time period, with riders being motivated to train only to pass the specific requirements of the test. Although specific types of solution were mentioned here (e.g. improve CBT and require a longer period of DAS training) there was a more general underlying belief that the test itself may be too easy, or may be missing vital aspects of riding competence. However, it was also recognised that riders may have 'good days' when they are at the required standard and 'poor days' when they may not always be. What is important is that the testing/assessment mechanism is to a consistent standard.

One approach to this perceived problem would be to consider ways in which test standards could be raised, and/or to include further elements in the test. For example, participants suggested that the test could be changed to include a ride on dual carriageways, require a minimum speed to be attained, and include overtaking manoeuvres on a variety of different roads, (although in reality safety considerations would prevent mandating minimum speeds or overtaking). DSA extended the duration of the practical on-road test in 1999 so that more driving centres had access to higher speed roads, including dual carriageways. There may also be ethical difficulties in setting a minimum higher speed or mandating any manoeuvre, such as overtaking, that might encourage higher risk riding within a practical test. There would clearly be serious practical difficulties in making such changes, and it is not at all certain that they would have the effect that participants were seeking.

However, although the specific changes mentioned above might not be feasible or effective, the participant's underlying view that passing the test does not guarantee a safe and competent rider clearly merits attention. One problem is that of dealing with attitudinal/motivational factors in practical testing (Baughan et al, 2005), though Baughan and Keskinen (2005) discuss ways in which such aspects might be brought into testing in the future.

The revised practical test for motorcyclists introduced in 2009 (a modular test with two stages) has more stringent requirements for some of the basic competencies – e.g. obstacle avoidance and riding round curves - than the current test and will presumably have some impact on post-test competence and on pre-test training. Some consultees to the project argued that examiners should always observe the candidate from another motorcycle, rather than from a car as is currently permitted. There is no scientific evidence available here and while the pros and cons of the idea could be investigated further it seems unlikely to make an important difference to motorcycling safety. Consultees also emphasised the need for examiner consistency, and their perceptions were that this is something that could be improved. In fact, DSA goes to great lengths to achieve consistency, and it may be that more effective communication with 'the industry' on how examiners are trained and monitored is really what is needed here.

As discussed earlier, changing the test is not the only way of encouraging learners to take more or better training and thereby reach higher standards. Alternative ways of encouraging or requiring people to take more training may be more effective. It should also be noted that the impressions noted above came from a relatively small sub-set of trainers, and are not necessarily representative of the whole motorcycle training industry.

[4] Of course, trainers base these views on those riders who do choose to come forward for post-test training. We do not know whether these people are more, or less, competent than the riders who do not seek such training.

6 POST-TEST TRAINING

6.1 Skills, knowledge and attitudes to be learned / developed

It might be argued that motorcyclists should learn all the important skills pre-test, so that by the time they obtain a full licence they are fully competent. However, there may be some aspects which are best taught (or extended) post test. At that time, riders no longer have to focus on passing the test, their basic skills are becoming automated and they are starting to gain experience. In addition the type of riding they wish to do, and the types of machines they ride, are becoming more demanding.

Post-test training as currently delivered was reported to be very much tailored to individual riders – i.e. to their experience, competence and to what they want to get out of the course. If a need for mass post-test training were to be accepted in future, and especially if it were to become a required part of rider development, there would need to be some standardisation of course content – i.e. so that 'approved' courses could be promoted. The general content would be drawn largely from Tables 1 and 2, though with emphasis on those aspects which are not well covered pre-test. In particular, and given the likely interest of riders in extending their 'sport riding' skills, the elements dealing with recognising and dealing with risk increasing factors associated with journey goals and personal characteristics are likely to be of particular importance. They are also the elements that are probably least well dealt with in current training.

Specialised or 'advanced' post test training, which tends to be taken up by relatively small numbers of riders after some years of riding, is of less interest to this project, in that the focus needs to be on mass training early in riding careers if it is to have large effects on road safety. However, the methods and content of advanced training may have much to offer.

Riders who are returning to riding after a long period may be similar in many respects to new riders. They both lack (motorcycling) experience of current road and traffic conditions. They also may be getting used to a new bike, a more powerful bike and the higher speeds which are possible. Post test training that is suitable for newly licensed riders may also be suitable for such returnees to motorcycling – though to maximise take-up by returnees it may be necessary to 'badge' the courses differently.

6.2 The learning / delivery methods used

In general, the principles for pre-test training already presented also apply to post-test training. However, rider motivations are likely to be different and perhaps more heterogeneous, which places more demands on trainers to identify training needs, and to deal with riders whose aims and perceived needs are rather different from their actual needs as assessed by the trainer. The need for training covering the upper levels of the GDE matrix may be greater post-test – and this places new requirements on trainer techniques and skills.

6.3 The trainers

As with pre-test training, ‘best practice’ as identified by the ADVANCED project suggests that post-test trainers need to be aware of the requirements of new (or returnee) riders. Frequently post-test trainers will be ex-police who have been trained to the very highest level of motorcycle riding, albeit will not necessarily have good instructor skills. As stated earlier, new types or elements of post test training may place new requirements on trainer competence. (The voluntary register of post-test trainers introduced in 2007 should help to ensure that training will be delivered by suitably qualified people).

6.4 Duration of training

Fairly obviously, the duration of post-test training should depend on what needs to be learned as well as the level and ability of the rider. As noted in above, ‘best practice’ as identified from the ADVANCED project suggests that a training record is maintained such that trainee progress can be recorded, monitored and tailored to their requirements. This applies more specifically to longer courses lasting more than a day.

6.5 Trainees' motivation

Participants in this project suggested that a majority of riders just want to pass their test at the minimum cost and effort. This implies that it will be a real challenge to motivate more people to take further training post test and it may be that to achieve mass take-up of post test training strong incentives or even compulsion would need to be considered. Clearly, however, trainees' motivation can be influenced by the characteristics of the training itself.

It is suggested (by the authors) that motivation during training needs to be high in order to ensure people (a) are motivated to learn, (b) do not drop out of the training and (c) will seek out further training, later in their riding career. It is therefore important that training is not merely prescriptive. Tailoring training to what an individual needs to learn (i.e. their perceived and actual need) is important. Highly skilled, professional, qualified instructors may also help with keeping motivation high and instructors need to ensure that training is interesting, enjoyable, fun but safe.

6.6 Voluntary vs. Compulsory training

The view that post-test training should perhaps be mandatory was expressed by some participants. It was suggested, for example, that successful completion of post-test training could be required as a validation of the test pass.

6.7 Licensing system

There are several ways in which the licensing system might be modified to promote or require post-test training. One possibility would be for test passers to be issued a probationary licence, and to require mandatory training during that period, i.e. the requirements for converting from probationary to full licence could include further training though, of course, the effectiveness of such training would need to be established. Alternatively, it might be possible to induce more riders to take up post test training on a voluntary basis by requiring them to pass an 'exit test' at the end of the probationary period as is already done in at least one graduated licensing system. The likely advantages and disadvantages of such tests for car drivers were discussed by Baughan et al (2005). Other restrictions and requirements could also be applied during the probationary period to control risk and to exert a supervisory influence on the rider – again as discussed by Baughan et al (2005).

Graduated Driver Licensing (GDL) systems that include such provisions have been introduced in many jurisdictions for car drivers and for motorcycle riders, and for car drivers there is evidence that they result in accident reduction. Monash University Accident Research Centre recommends the formulation of graduated licensing programs for motorcyclists that follow similar graduated licensing structures for car drivers Mulvihill and Haworth, (2005). Mayhew and Simpson (2001) report that the benefits of graduated licensing for motorcyclists are only noted to reduce the exposure to high risk environments. Langford, J. (2005) recommend, for Victoria, a series of graduated licence measures to prevent and reduce fatalities and injuries to young motor cyclists.

7 SUMMARY

The current high accident liability of motorcyclists leads us to search for ways of reducing accident involvement by improving training. Research suggests that both basic skills and higher-level behavioural and motivational aspects of motorcycling need to be improved. In addition to this general indication of a need to improve training, (supported by improvements in testing) there were strong claims made by some participants in this project that the current training/testing/licensing system has some undesirable characteristics.

After completing a short CBT course [5] and been judged to meet the required CBT standard, learners can ride <125cc motorcycles on the public roads provided they display L-plates. They need not take any further training, and may well not do so unless they plan to take their motorcycle test. Those that do take their test will probably take a DAS/AA course (85%) and this will allow them to ride any motorcycle provided they pass their test on a suitable machine. Some riders achieve this with just 4-days of training having never previously ridden a motorcycle (most training providers offer 3 or 4-day courses). Some participants in this study felt that this often meant compressing the training to focus on the test rather than on producing a rider who can ride a powered two-wheeled vehicle under a wide range of conditions safely and responsibly. However, it was also reported that some of these courses encourage extra days of training to be taken, depending on the ability of the trainee.

In addition, some trainers consider that the 'products' of CBT are not always competent to ride on the road, and do not meet stated CBT competence levels. (This suggests a potential problem with training schools not operating to the appropriate CBT standard – something which DSA has been addressing). Trainers also thought that some new licence-holders are far below any acceptable standard of competence for unsupervised riding, which, if true, has important implications for the adequacy of their training, and the ability of the test to encourage good training by identifying and failing riders who do not meet the required standard.

However in addition to these specific criticisms of the current system, there was a general view that motorcycle trainers are generally a dedicated and motivated set of people whose main concern is to train new riders to a standard where they can pass their practical riding test, but at a pace that is tailored to the rider. There are courses which can be completed in only a few days, but even so most trainers recognise that riders differ in their learning rates and competence and that this needs to be reflected in the number of days and the time period when they are learning. The observational study identified that trainers tend to focus on the skills needed to ride a motorcycle with the objective of producing a safe rider who had reached a test ready standard of riding. The trainers did not specifically try to train attitudes and awareness of risk but incorporated and encouraged appropriate riding behaviours during on-road training.

Some trainers felt that the following would be sensible ideas for consideration:

- To extend CBT to at least a day and a half course, with no road riding on the first day which would focus on an understanding of the Highway Code, rider attitudes and associated risk as well as elements A to D of the current CBT elements. It would also ensure that riders were not so tired (and perhaps cold and wet) when they came to take their on-road ride.

- To have a scheduled or forced break in DAS training to allow pupils to obtain some valuable on-road riding experiences before obtaining their full-licence.

- To make available a large practice area prior to going onto public roads. This would facilitate training and practising the new (introduced in 2009) non-public road element of the test as well as allowing riders to experience different types of road layout, e.g. roundabouts and junctions. Further, if some of this area was undercover this would ensure that it was always useable and that riders could practise early elements of machine familiarisation safely in dry conditions.

- That a theory test should be taken prior to taking CBT, (the current rules state that the theory test must be passed before taking the practical riding test, but there is no reason that a

[5] There are 5 elements to cover: introduction, on-site training, on-site riding, on-road training and practical on-road riding. The on-road elements must take 2hrs or more. The course lasts as long as it takes the trainee to reach the required standard. This may take a day, or be done over a longer period, but participants in the study stated that some trainers tend to complete the CBT in 4 hours.

basic 'road rules' test should not be taken either before or within the CBT which would at least demonstrate the rider had some knowledge of the Highway Code).

Note that, some of these ideas were incorporated into the 'good practice' as outlined in Table3, and as derived from the ADVANCED project recommendations.

To help improve the safety of motorcyclists via training, the authors conclude that several possibilities have emerged from this study and should be considered:

- Improvements to pre and post-test training content and delivery.

  It is suggested that some of the additional elements as outlined in Table 2 should be included within pre-test training; further, that the delivery of all training should meet the suggestions as made in the ADVANCED project as reflected in Table 3.

- There is scope for inducing better training by changing the testing requirements:
  - Ensuring that CBT is taken as intended and spans more than one day
  - Incorporating mandatory non-formal training days into DAS courses to ensure they obtain more riding experience before taking their test – this could be recorded in a log-book which would imply mandatory log-books and supervised training/practice
  - Extended testing of CBT riders before they ride on the road
  - Making the licence test itself more stringent, or widening its coverage (the recent changes to meet EC requirements are a partial example of this)
  - A possible exit test following a probationary post test period.
  - Devolving some assessment into the training system itself – e.g. getting trainers to certify competences – perhaps in a logbook, (in which case it may be a good idea that DSA should have a role in quality assuring the delivery of motorcycle training and log-book entries, for DAS in particular).
- Making some aspects of post-CBT and/or post-test training compulsory
- Wider changes to the licensing system – e.g.:
  - Introducing minimum periods for holding the provisional licence
  - Changing age-requirements to encourage training and practice
  - Introducing more restrictions on pre-test and or post-test riding
  - Introducing a probationary phase with perhaps an exit test

Note: the likely effectiveness of such licensing changes would need to be carefully assessed. There is little evidence on their effectiveness for motorcycle licensing, e.g. Haworth & Mulvihill (2005), and findings from evaluations of car-driver licensing systems may not generalise.

As indicated above extensions to the licensing system are suggested which would increase the number of stages in licence acquisition before a full-licence could be obtained, further that this should also include curricular elements addressing attitudes and risks as well as core riding skills. It is appreciated that 'training' attitudes and risk awareness is not easy but the ADVANCED project developed an on-line risk awareness database which should be helpful. The authors consider that extending the licensing system is one approach which should encourage a level of training and testing that will, in turn, produce safer riders. This could be supported by a logbook – indeed a logbook could be seen as a way of introducing a graduated motorcycle licensing system.

Note that the 'Competence Framework for Moped and Motorcycle Riders' as currently being developed by DSA (in 2009) will help to ensure the development of a syllabus, educational and

learning materials, testing and assessment protocols and standards assurance for professional riding instructors and as the basis of a separate Competence Framework for Motorcycle Trainers. This will help to address many of the shortcomings of motorcycle rider training identified in discussion and interviews with the trainers and associated 'umbrella' organisations during this review. Further, the DSA innovations of the enhanced rider scheme and register of post-test motorcycle trainers are already a step in the direction of ensuring that training is conducted in an appropriate and quality assessed framework.

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ANNEX A: THE GDE MATRIX AND EXPLANATION

Hierarchical level of behaviour	Essential contents (examples) Knowledge and skills	Risk-increasing factors	Self evaluation
Goals for life and skills for living (general)	Knowledge about/control over how life goals and personal tendencies affect driving behaviour - lifestyle / life situation - group norms - motives - self-control, other characteristics - personal values etc.	Risky tendencies - acceptance of risks - self-enhancement through driving - high level of sensation seeking - complying to social pressure - use of alcohol and drugs - values, attitudes towards society etc.	Self evaluation/awareness of - personal skills for impulse control - risky tendencies - safety-negative motives - personal risky motives etc.
Goals and context of driving (trip related)	Knowledge and skills concerning - effects of trip goals on driving - planning and choosing routes - evaluation of requested driving time - effects of social pressure in car - evaluation of the necessity of trip etc.	Risks connected with - driver's condition (mood, BAC etc.) - purpose of driving - driving environment (urban/rural) - social context and company - extra motives (competing etc.) etc.	Self evaluation/awareness of - personal planning skills - typical goals of driving - typical risky driving motives etc.
Mastery of traffic situations	Knowledge and skills concerning - traffic rules - observation/selection of signals - anticipation of course of situations - speed adjustment - communication - driving path - driving order - distance to others/safety margins etc.	Risks caused by - wrong expectations - risk-increasing driving style (e.g. aggression.) - unsuitable speed adjustment - vulnerable road-users - not obeying rules/unpredictable behaviour. - information overload - difficult conditions (darkness etc.) - insufficient automatism / skills etc.	Self-evaluation/awareness of - strong and weak points of basic traffic skills - personal driving style - personal safety margins - strong and weak points of skills for hazard situations - realistic self-evaluation etc.
Vehicle manoeuvring	Knowledge and skills concerning - control of direction and position - tyre grip and friction - vehicle properties - physical phenomena etc.	Risks connected with - insufficient automatism / skills - unsuitable speed adjustment - difficult conditions (low friction etc.) etc.	Self-evaluation/awareness of - strong and weak points of basic manoeuvring skills - strong and weak points of skills for hazard situations - realistic self-evaluation

(Source: Hatakka et al 1999, GDE – Goals for Driver Education)

ANNEX B: INTERVIEW SURVEY REPORT

Annex B is a report produced by Enterprise, Planning and Research Ltd. on the depth interviews conducted with a sample of motorcycle trainers. Some minor typographical points have been corrected and most of the quotes have been removed from the submitted report. It is a reflection of what the 20 training organisation said in the depth interviews and their perceptions of issues and experiences with rider training.

1. INTRODUCTION

1.1 Background (to consultees)

The Transport Research Laboratory (TRL) is an independent, internationally-recognised organisation providing research, advice and solutions on every aspect relating to land transport. Key areas of expertise include infrastructure, transportation, safety, vehicle safety and environment.

TRL is currently undertaking a project on behalf of the Department for Transport which aims to investigate current motorcycle training courses in order to identify examples of good practice and provide guidelines for standardising core elements of the training. The project encompasses a number of different activities including a self-completion survey and mystery training activities.

Given both the lack of knowledge regarding the content and practice of current motorcycle training and the variety of different courses available within the UK, TRL commissioned EPR to undertake a programme of preliminary depth interviews with motorcycle training providers. This will be used as a starting point for identifying 'good practice' and will assist in the development of the questionnaire to be used for the postal survey.

1.2 Objectives

The main objective of this stage of the research was to discover how trainers structure their courses and what they consider they achieve. Specific research objectives included:

- to investigate skills being taught
- to assess the training techniques being used and the overall approach in terms or classroom v practical elements
- to assess overall timing of courses and the time spent on different elements

1.3 Method of Work

All interviews were undertaken in person by EPR executive interviewers. Respondents were recruited from sample lists provided by TRL with particular efforts made to interview potential respondents marked as priorities. The sample structure is:

Region	**Number of respondents**
North West	6
West Midlands	2
London/Essex	8
Thames Valley	4
	20

Training focus

CBT	4
Pre-test (DAS & 'Voluntary')	10
Post-test/advanced	6

Interviews took place at respondents' places of work and these included motorcycle dealerships, training premises, cafés and private homes.

2 CONCLUSIONS, RECOMMENDATIONS & RESEARCH LIMITATIONS

2.1 Motorcycle Training in Practice

At most levels, motorcycle training is carried out in a holistic manner and is predominantly based around practical riding experience. The emphasis throughout is on demonstration, practice & feedback rather than on theoretical or academic approaches. As a consequence, most major topics such as 'dealing with traffic' are not taught as individual subjects but are integrated into practical training sessions. It is not possible, therefore, to give detailed timings for each different element of training. It is, however, evident that all of the main elements described are generally covered.

A further defining characteristic is the high level of adaptation required for individual students; trainers say they will take as long as is required for a student to attain a certain skill rather than spend a prescribed amount of time on that topic. Even with CBT, which has a clearly defined course structure and content, a great deal of adaptation is needed to ensure that students meet the required standard to attain their provisional licence.

There is throughout perhaps a sense that trainers are not so much teaching courses but providing training at the appropriate level for each student.

The key best practice features identified through depth interviews with motorcycle trainers therefore mostly relate to the personal skills & qualities of trainers:

- considerable experience and expertise in motorcycle riding
- the interpersonal and communication skills required to teach practical motorcycle skills
- the capacity to recognise and understand rider objectives, capabilities & short-comings
- the skill of tailoring training to the needs and objectives of specific riders
- the ability to integrate theoretical elements into practical teaching at an appropriate time and within a suitable context
- at advanced level, the ability to teach a system or style of riding so that riders can apply their learning pro-actively, not reactively

It is clear from the research that respondents have concerns over the quality of motorcycle training and have a desire for these to be addressed. The changes that trainers have made very much suggest the need for external intervention and tend to focus on the constraints to which they work. These include[6]:

- the attitudes of students, who often view training as a mandatory, grudge purchase which can result in their being un-receptive to safety messages and unwilling to invest in further training
- the low levels of income which can be earned, leading to many instructors undertaking motorcycle training as a second job or hobby rather than as a mainstream career choice

[6] Note: these findings are based on depth interviews with just 20 training providers; it is likely that a larger sample may have elicited other views. Almost certainly the opinions of the regulatory authorities may not always concur with that of the trainers.

- the limited amount of time that trainers tend to have with students

- the perceived prescriptive approach of the DSA, which means trainers say they are compelled to teach particular skills to meet the requirements of the Motorcycle Test which they do not necessarily regard as the practical skills that individual riders will need in order to ride safely on the road

- the perceived lack of understanding of motorcyclists needs' among regulatory authorities

- the current testing & licensing regimes

2.2 Recommendations for Further Research

2.2.1 Need for Further Research

Given that this is a qualitative, exploratory study it cannot be stated to what extent the behaviour & practices outlined here are representative of the industry as a whole. Neither is it evident whether the views expressed are in line with the remainder of the industry.

2.2.2 Response Rate

It is understood that the sample material provided for this study is part of a larger sample frame being compiled by TRL from secondary sources for use in a universe postal study. There are a number of issues with the sample frame which are likely to depress the response rate in a postal study. As with all sample lists, these primarily relate to the age and accuracy of the information sources used.

Despite some misgivings, the majority of those contacted were highly co-operative so that a good response rate might be expected where forms are successfully delivered.

2.2.3 Information Provision

The interviews took substantially longer to complete than the specified 50 minutes, with times ranging from 1 to 2 hours; most were at least 90 minutes. The time taken to complete the interview was affected by both the length & breadth of the topic guide and the willingness of respondents to talk at length about subjects of interest. Indeed, motorcycle training providers are unlike typical business respondents in that they are primarily involved through their personal interest in motorcycling; several could be characterised as hobbyists or second jobbers.

When developing the questionnaire for the quantitative survey it should be recognised that respondents are likely to add additional comments and complete open-ended questions to a far greater degree than might normally be expected on a self-completion study. Not all respondents will have good written communication skills.

Given the level of cynicism to the regulatory authority shown during the depth interviews, it will also be important to make clear that this exercise is for research purposes and is not some form of monitoring. Otherwise, responses may reflect what trainers think the DSA (or other body) wants to see rather than accurately reflect what they actually do.

2.3 Research Limitations

The attention given to the views and behaviour of motorcycle trainers in this research appears thorough. It is less clear, however, to what extent the influence of other key stakeholders in motorcycle training falls within the remit of the larger study. For example, comparisons have been

made between what trainers' objectives are for training courses and what trainers perceive their students' objectives to be. Without testing these views against those of actual students, any statement of students' objectives contained in this report should only be viewed as the perceptions of a third party, not as fact. Consideration should, therefore, be given to whether further research among students is also required.

The views of those respondents interviewed suggest that the quality of motorcycle training provision is unlikely to improve through industry-led initiatives alone. If these views are replicated in the wider study then it is recommended that the views of regulatory and legislative stakeholders should also be sought.

> *"Instructors appear to be being blamed for poor riding but surely it has to be the person that passed him on a test? Make the test harder then you will force students to take more training"*

3 TRAINING OVERVIEW

3.1 Training Involvement

Practically all are involved in CBT and DAS, the only exception being an advanced instructor who is solely involved in post-test training. Around three quarters are involved with post-test or advanced training, including 6 of the 10 who focus on pre-test. Slightly fewer (13) are involved in restricted access/voluntary pre-test training but this does not include any of the 6 advanced trainers.

Small numbers of respondents mentioned other types of training, the main ones being refresher/back to biking training (5) and instructor training (4). Only one instructor spontaneously mentioned accelerated access.

3.2 Course Overviews

3.2.1 CBT: *"A basic level of competence to ride unsupervised on the roads"*

Half have 2 students per course, slightly fewer have 4 with one school having as many as 7-8 students per course.

Even at this basic level, and with a prescribed syllabus, there is great variety in the length of time the training takes. Whilst most said it takes place during the course of a day some consider there is too much ground to cover so that students may need to come back for further training on a second day. Estimates of the number of hours involved vary from 5½ - 10.

The three main things that trainers consider students gain on a CBT course are:

- basic bike riding skills (14)
- CBT certificate (8)
- basic motorcycle knowledge (7)

3.2.2 Restricted Access: *"A good grounding to get through the test"*

Voluntary pre-test training courses generally run with 2 students each but about a quarter have 4. One pre-test specialist prefers 1 to 1 instruction at this level. Duration of these courses varies more widely than for CBT, ranging from 1-5 days. Most courses, however are in the region of 2-3 days. The number of hours mentioned ranged from 6 – 32 hours and this can be spread either over whole, consecutive days or through shorter sessions spread over a number of weeks. Not surprisingly, the main thing instructors think that students get from this course is a full licence, restricted to 33 bhp

for the first two years. Other benefits include experience, safety training and competence to ride on the road, which is not necessarily the same as competence to pass the test.

3.2.3 DAS: *"A full unrestricted licence to ride any machine of choice"*

Direct access training is nearly all undertaken with two riders and one instructor. One instructor prefers a 1 to 1 ratio but undertakes training as a part-time, second job rather than as a career so that commercial pressures are perhaps less of an issue.

Timing varies from 2- 5 days with most in the 2-4 day region. In some cases these times include ½ day for the motorcycle test, whilst others do not include this. Complete novices doing a combined CBT and DAS will take 4-5 days, more experienced riders perhaps 2 or 3. DAS tends to be taught as an intensive course on consecutive whole days rather than periodically. The number of hours involves varies from 6-32 but 15-25 is probably the norm.

The main thing riders gain from the course is a full, unrestricted licence. Smaller numbers are thought to obtain a good introduction to riding heavier, larger & more powerful bikes.

3.2.4 Advanced/Post-test: *"Some are aiming to fix a problem, others are looking for a higher level qualification"*

There is a wide variety of different types of training available at this level which largely cater for the individual requirements of experienced riders. Not surprisingly, therefore, 1 to 1 instruction is more common, especially among specialist advanced instructors. Those specialising in CBT and pre-test appear more likely to teach in small groups of 2 or 3, (note: CBT is actually restricted to a training ratio of 4:1 on site and 2:1 on road. All DAS training is restricted to a 2:1 ratio).

Timing is largely dependent on rider ability & objectives and can vary from 1 hour to 7 days. Those aiming for a RoSPA or other diploma pass are likely to be on an intensive course over consecutive days, others perhaps more likely to be doing smaller sessions on a periodic basis.

What riders gain from advanced or post-test training obviously depends on their objectives for doing it in the first place. Among those interviewed a desire to adopt a safe system of riding is probably more prevalent (6 respondents) but this is matched by an almost equal number whose objective is to improve their skills (5) e.g. to go round corners more quickly/safely. Other objectives include specific test passes, obtaining the NAAMI certificate and cheaper insurance.

4 STRUCTURE OF TRAINING COURSES

4.1 Objectives

4.1.1 Spontaneous

As might be expected, overall course objectives differ according to each course. CBT is designed to enable trainees to develop basic control skills in a protected environment and gain supervised experience on road to help prepare them to continue to train and learn in safety (though there was a feeling amongst interviewees that this boiled down to going through the syllabus and getting someone onto the road.) . Whilst 7 out of 10 at the pre-test level said that getting a full licence was the key aim, at least half supplement this with safety objectives. At advanced level, nearly all mention safety as a key priority with slightly fewer mentioning machine controls and skills.

4.1.2 School & Trainer Objectives

There is little difference between the spontaneous objectives mentioned above and those of the school/trainer. This is not surprising given the small size of most schools and the fact that the respondent was the senior instructor. It is also symptomatic perhaps of the style of most motorcycle training, being experiential and practical rather than theoretical.

4.1.3 Riders Objectives

There are, however, thought to be considerable differences between the objectives of schools/trainers and their students. All CBT and pre-test instructors think that their students' main objective is, not surprisingly, to pass their test. Thus safety has a far higher priority among trainers than among their students. Advanced instructors are more likely to think that students have a safety objective but this is not pre-dominant. There is, though, generally less disparity in the objectives of advanced instructors and students than at lower levels of training.

4.1.4 Written Objectives

Around half of the trainers interviewed claimed to have written objectives for their courses. Few, however, were forthcoming with these when asked. The quality of the materials supplied ranged from a complete CBT instruction manual with clearly stated written objectives to a tick list which instructors use to mark their progress through a course. A few will refer students to the Highway Code or Roadcraft as a means of explaining their training objectives.

4.1.5 Communication of Objectives

Most trainers communicate their objectives to riders verbally. Others, however, are clearly using a number of different techniques and methods to get their message across.

4.2 Course Structure

CBT & pre-test instructors mostly referred to the CBT or Practical test syllabus at this point or gave a verbal description of a course. Advanced instructors either referred to specific skills that are taught e.g. cornering, observation or commented that they are teaching a riding 'method' eg the Police IPSGA system. Practically all advanced trainers start each course with an assessment ride so that they can help set priorities & objectives with each rider individually.

When prompted with the 6 different elements, almost all instructors commented that they cover all of them: bike control & handling skills, dealing with traffic, awareness of personal characteristics & behaviour, journey related characteristics, risk factors and self limitations. The only exception was a CBT instructor who did not say that he covers self-limitations.

4.3 Timing of Various Elements of Course

Over half of the trainers interviewed were unable to split out the time spent on each of the 6 elements listed above. This is either because the amount of time spent on each element varies from rider to rider or because each element is covered on an ongoing or as and when basis throughout each course. Interestingly, this was even the case for CBT instructors, teaching a set syllabus in a relatively short period of time.

Those who did comment said that the bulk of the time is taken up by the first two elements: bike control & handling skills, dealing with traffic. A probable split is two thirds on the former and up to a quarter on the latter. Personal characteristics is probably the third largest element, accounting for less (much less in some cases) than 25%, with times ranging from 20 minutes to 2 hours. The three remaining factors are all relatively minor in terms of time spent with times in the range 15-75 minutes.

4.4 Location of Training

There are essentially three environments where students are taught: in the 'classroom', off-road and on-road. All courses are biased towards the practical elements of riding, either on or off-road. CBT has the highest classroom element of maybe one third or up to 2 hours of the course, followed by 2-4 hours of skills training off-road and a 2-hour road ride.

Advanced courses tend to have the least amount of time in the classroom and off-road and the highest proportion on-road; two thirds spend most/nearly all their time on the road. Pre-test courses

are somewhere in between with several hours in the classroom and off-road but the majority on road; about half spend most or nearly all the time on the road.

4.5 Monitoring Progress

Progress is usually monitored by observation or verbally through Q&A sessions with students. About half keep written logs, including 4 of the 6 advanced trainers but only 1 of the CBT instructors.

4.6 Feedback

Feedback is regarded as a continual process by motorcycle instructors, particularly during practical sessions. All provide feedback during and after riding. This is predominantly verbal/via the radio. Some supplement their verbal feedback with detailed written material or visual aids such as diagrams, models & on-board video footage. At pre-test and advanced level the amount of 'real-time' feedback and instruction is reduced and a typical pattern is to ride for a specified period of time then stop at a café or by the roadside and have a 15-20 minute de-brief. This form of feedback is particularly important at more advanced levels where higher speeds & levels of concentration are involved on the part of the instructor.

4.7 Student/Trainer Ratios

Ratios are typically 2:1 for on-road elements of CBT and pre-test but can rise to 4:1 for off-road sessions on these courses (as stated in the regulation). Most advanced tuition is undertaken on a 1:1 basis. Schools typically use multiple instructors for CBT and pre-test courses but have just 1 for advanced training, sometimes employed on a freelance or associate basis.

4.8 Adapting Training to Student Needs

All interviewed adapt training sessions to the needs of individual students. One trainer commented that flexibility is limited by the DSA syllabus requirements for CBT. In fact the system covers minimum content and does not preclude additional items being covered. Adaptation is determined by preliminary assessment rides and discussions with riders at advanced level. Similar techniques are used at pre-test level with the addition of observation which is the key determinant at CBT level.

Given the requirement to meet specified standards on CBT and bring trainees to an acceptable level on pre-test courses, training is adapted by giving students additional time, slowing their progress through the course and on occasion by bringing in additional training support to help with slow learners.

4.9 Equipment Usage

At CBT level and on DAS courses, 90-100% of students use school bikes for training. This drops somewhat on restricted access courses but even here 50-75% use the school's bike. Advanced level training is nearly all undertaken using the student's own bike, and presumably riding kit.

4.10 Communication

Radios are used as the prime means of communication during training at all levels by all trainers. Oral instructions are more common on those courses with substantial off-road elements. Hand signals tend to be kept to a minimum, perhaps only used to indicate that a student hasn't heard an instruction. Some advanced instructors will communicate directional instructions by early indication when approaching a junction to help improve a student's observational skills.

4.11 Differences Between Courses

Spontaneous comments tend to make a distinction between advanced/post-test courses and others. In other words, CBT and pre-test courses are regarded as fairly similar in terms of objectives and course structure, with the obvious exceptions of duration and the size of the bike.

The other main comment is that the proportion of road riding within each course rises from CBT to pre-test to advanced. The latter is nearly all based on the road. Advanced courses are also recognised as more flexible, adaptive and focused on practical skills rather than those required to gain a CBT/test pass. Finally, advanced training is regarded as the preserve of the experienced rider, whereas pre-test and CBT students mostly involve learners.

5 SKILLS TRAINING

5.1 Skills Covered on Each Course – as reported by interviewees

The table below summarises the skills taught by each school on each course.

	CBT (12) %	CBT+ PRE-TEST (DAS/125) (11) %	PRE-TEST (DAS/125) (11) %	POST-TEST/ ADV. (9) %
Clutch/brake control	100	100	100	78
Moving off	100	100	91	78
Basic manoeuvring	100	100	91	67
Slow speed control	100	100	100	78
Braking	100	100	100	78
Signaling	100	100	100	89
Life-saver checks	100	100	100	100
U-turns	100	100	100	44
Cornering	92	100	100	100
Counter-steering	33	64	64	100
Positioning	100	100	100	100
Overtaking	67	91	82	100
Selecting a safe speed	100	100	100	100
Urban riding	100	100	100	89
High speed riding	42	64	82	100
Obstacle avoidance	75	91	100	89
Rural road riding	83	100	100	100
Observation	100	100	100	100
Defensive riding	92	100	100	100
Hazard perception	100	100	100	100
Riding in groups	42	64	55	78
Filtering (spontaneous)	8	9	9	22
Motorway riding (spontaneous)	0	0	0	11

Night riding (spontaneous)	0	0	0	11

5.2 Pre-Test Training & Skills Provision

There is clearly a view among trainers that the motorcycle test, per se, does not prepare a student adequately for safe riding on the road; practically all trainers reported trying to go further than teach the basics required to pass the test. Two advanced instructors, however, stated that they simply conform to the test requirements. Instructors attempt to cover a range of additional skills but their ability to do so is constrained by time/cost, the inability of riders to absorb further training (of particular concern to advanced instructors) and the DSA test requirements, which limit the aspirations of some riders. Only a minority of students are keen to learn more, mostly they simply want to pass their test.

The main additional skills mentioned by trainers are positioning (5), cornering (3) and counter-steering (3). Other factors mentioned largely involve different environments from those in the test eg motorways and methods of coping with these e.g. high speed riding.

5.3 Safety Concerns

Just under half of instructors say that there are no skills which they will not teach because of safety concerns. The main concerns from the remainder are counter-steering (4) and filtering (4). About half are asked by students how to pull wheelies with a similar proportion mentioning stunt or trick riding skills. Mostly these requests, on post-test courses, are dealt with by flat but firm refusal. Smaller numbers explain that such manoeuvres are illegal, dangerous or not suitable for the road. A few will tell riders to go to a trick riding school if they really want to learn about them.

6 TECHNIQUES & FACILITIES

6.1 Techniques

Explanation, demonstration, practice & feedback is the dominant means of motorcycle training across all levels. Demonstration and practice are key themes throughout, emphasizing the fact that motorcycling requires different skills than driving. One respondent each mentioned gestalt and visual audio kinaesthetic (VAK) approaches. The former is a methodology based on allowing students to learn how to do something before discussing and explaining it. Thus the order becomes demonstration, practice, explanation.

All instructors use demonstration rides and diagrams and most encourage observation of other riders. Use of the video is less widespread, however, with just over half involved. Titles mentioned *include 'What if', 'I just didn't see you' and 'A street, a track, an open road'.*

6.2 Most Effective Training Techniques

Trainers regard demonstration and practical experience as the key means of learning motorcycle skills.

Lectures or lengthy verbal explanations without practical demonstration are regarded as the least effective training techniques because students either switch off or simply can't understand how to do something without experiencing it themselves. Smaller numbers also consider video to be ineffective.

6.3 Facilities

Practically all trainers have access to an off-road training area (19). Often this is not a dedicated facility but used for training during quiet periods e.g. car park at dog racing or football stadium used during the day. Almost as many trainers have some form of 'classroom' although this may also be a

dual purpose facility eg a trainer's study or office at home. One school does not have a classroom facility, operating from containers in leisure centre car parks and conducting the theory parts of CBT whilst stood around the bikes. Only half have a video. Other facilities mentioned include white boards, literature, computers used for hazard awareness and street scene models/play mats.

6.4 Training School Appraisal

Observed improvements in rider skills, feedback from students and pass rates for test/ CBT training are the key means trainers use to appraise the effectiveness of their training. Improvement in rider mentality or attitude is also a factor, especially at advanced level. Smaller numbers referred to recommendation, DSA feedback or have their own monitoring system.

7 RIDER ATTITUDES

7.1 Extent to Which Rider Attitudes Affect Riding

There is no question among trainers that riders' attitudes have a great influence on their riding. The effect of this can be both positive and negative during the training. For example, a positive attitude can enable students to learn more quickly and achieve greater progress but negative attitudes have an adverse effect. For some the issue is not so much what happens during training, when students might pay lip service to safety, but afterwards when there are no constraints upon them. Attitudes are an issue at all levels of training.

7.2 Extent to Which Training Can Influence Rider Attitudes

Trainers are divided, almost equally and at all levels, on the extent to which training can change or influence people's attitudes. Whilst some consider that training can change how people think, others consider that the best it can do is to get students to start thinking about their attitudes rather than change them outright.

Others, however, are more sceptical arguing that attitudes are born of a combination of lifelong beliefs, learned behaviour, peer pressure and lifestyle. Against these potent forces it is thought unlikely that training can have much influence. More mature DAS students and younger CBT riders are key problem areas

7.3 Dealing with Attitudinal Issues During Training

Practically all commenting said that the overall approach they take is to show that they disapprove of un-safe attitudes and actively try to change them. Trainers adopt a variety of different techniques when attempting to do this. A key element is clearly gaining the respect of the students and not simply lecturing students in an unsympathetic manner. With more advanced riders, trainers will discuss issues and explain how the attitudes of riders can influence their riding.

Behavioural problems are dealt with forcefully, either verbally or by stopping riders taking part in practical elements of the course altogether. Often, however, these techniques appear more suited to keeping discipline during training rather than having any fundamental influence on changing rider attitudes. Another, more pragmatic approach that some take is to tell riders that their attitudes and behaviour will not allow them to pas their test.

7.4 Key Messages

At test and advanced levels, practical, real-life examples of how attitudes can lead to accidents and injury are the key messages. Leading by example, setting the right tone and exhibiting the right sort of behaviour and attitude are important at all levels. Shouting, lecturing, being dogmatic and quoting statistics are regarded as least effective as riders will not identify with the message being given.

Of the five messages that trainers were prompted with, personal safety, consequences for friends/family and other road users are regarded as good messages by about two thirds. About a third consider legal/financial consequences and accident statistics to be effective but an equal proportion disagreed. Clearly different messages need to be used because different riders will respond to them in different ways

8 INSTRUCTORS

8.1 Employment

Almost half of the schools involved have only 1 or 2 trainers. 3 of the pre-test specialist and 4 of the 6 advanced instructors are solo operators. A further third of schools have 4-7 trainers with only a minority having large numbers of instructors (up to 23). The latter are involved in CBT and/or pre-test training.

In employment terms, motorcycle training is fairly informal with a third of the schools interviewed having no full-time staff and two thirds of trainers being self-employed. The usual pattern is for a mixture of full time employees and part-time freelancers. At the most extreme, 1 school had 3 full-time staff and 20 part-timers. Only 2 schools said that they solely use employed staff. Advanced training in particular appears to be the preserve of the part-timer or second jobber, not because it is seen as something to earn some extra cash from, but because it is difficult to earn a full-time living from.

8.2 Background

The defining characteristic of motorcycle trainers is their long-term history of riding motorcycles. Nearly half of schools employ Police or ex-Police riders with couriers and other careers involving driving also mentioned. A quarter mentioned an ex-forces background and the advantage of this is that the forces assist those leaving to find new careers and provide funding for training. A few have come to motorcycle training from professional backgrounds, for example one is a practising architect.

8.3 Qualities

The main qualities trainers look for in other instructors are people and communication skills and patience, the latter particularly at test level. A nice/positive attitude is regarded as essential by a third with a sense of humour and the ability to sympathise with riders also mentioned. Only a quarter spontaneously mentioned good riding skills but this is almost universally accepted as a given.

8.4 Qualifications

The key qualifications are Cardington Assessments at CBT and DAS level, mentioned by three quarters overall. Comparatively few of the trainers involved at CBT and pre-test level spontaneously mentioned advanced riding qualifications, whereas all advanced instructors did so. At post-test level RoSPA qualification/accreditation is considered by this sample of instructors to be the benchmark. Those involved in pre-test and advanced training are more likely to have also sought training or educational qualifications not directly related to the motorcycle industry with GNVQ, City & Guilds & BTEC diplomas all being mentioned by small numbers.

8.5 Becoming an Instructor

Practically all of those commenting outlined the following process:

- observe/assist CBT courses at a local school
- downtrain as a CBT instructor
- practice/experience as a downtrained CBT instructor

- Cardington assessment

Some schools, particularly those dealing with large numbers of CBT students, may use trainers who have only ever been downtrained. Other schools will not employ downtrained-only instructors and will either operate their own formal courses, send instructors on these or employ instructors with formal training eg Police, ex-forces etc.

8.6 Course Materials Used

As would be expected, answers vary according to the type of course. Those training CBT & pre-test follow the DSA syllabus, perhaps with personal adaptations, the latter being more likely on pre-test courses.

Advanced instructors are less likely to follow set programmes and more likely to customise each training service to the needs of the client. The main exception is where the course has the specific aim of teaching a riding system or preparing for a post-test diploma eg RoSPA. As would be expected larger schools tend to be more likely to have their own set programmes.

Most training schools use their own materials, often adapted from recognised texts such as DSA Official Motorcycling or Roadcraft. A third mention directly using the DSA syllabus/manual or Roadcraft. In-house production of prompt cards and laminated diagrams for carrying on the bike are also popular. In addition to these primary materials, some schools have a wide range of secondary resources.

8.7 Attitudes to 'The Edge'

Just under half of the trainers interviewed had some knowledge of 'The Edge' programme. Of those aware of the scheme, only a third commented favourably on it. Those critical of The Edge either saw it as being too prescriptive or considered it a pale imitation of Roadcraft, the standard advanced level training manual.

9. IMPROVING MOTORCYCLE TRAINING

9.1 Improvements Suggested

Only 1 of the 20 trainers interviewed did not see the need for changes or improvements to motorcycle training in the UK. In the region of 40 different suggestions were made by the remainder. These fall under the broad topics of CBT, Motorcycle Test, Advanced training, licensing, DSA & General improvements, with roughly equal numbers commenting on each topic. Most suggestions would require some form of external intervention, eg legislation, or action, eg promotion, rather than being things which the industry could achieve itself.

The main comment on CBT is that all students should have to take a theory test before undertaking this. Other comments concern a perceived lack of flexibility and either call for a 2+ day course for slow learners or a shorter course for more experienced riders. In fact, the duration of the course is fully flexible (apart from a minimum requirement of 2 hours on the road) and should be determined by the trainee's ability and progress. The comments suggest that this message is not getting through to all trainers.

The main comments around the Motorcycle Test concern opposition to the new elements being added in 2008 (actually introduced in 2009), and new restrictions regarding access to larger bikes. Beyond this, however, there is also a reported perception from these trainers that the current testing procedures are not sufficiently rigorous for a full unrestricted licence.

Comments on advanced level training stress the need for all riders to have some form of post-test training and the need for RoSPA to be involved in this in a supervisory or regulatory capacity rather

than the DSA. Comments on licensing are more disparate but indicate a need for a simpler, more progressive regime.

General suggestions include:

- higher standards needed in general (3)
- fully qualified instructors at all times, not down-trained (2)
- more investment (1)
- more training (1)

9.2 DSA Registration of Instructors who Deliver Post-Test Training

Amongst the small sample of 20 trainers there is unanimous support for the concept of some form of registration for approved instruction but considerable opposition to the DSA being responsible for it. Whilst about half support this proposal, an equal proportion did not consider DSA as being the appropriate body to create a register. (In practice, since this study was completed DSA have successfully set-up a Register of Post-test Motorcycle trainers).

9.3 Industry Standards

The trainers interviewed mostly do not have a high opinion of other motorcycle instructors. About a third think industry standards are very good or good but almost equal proportions think the standard is either inconsistent or poor.

9.4 Instructor Improvements

Many different suggestions were made as to how the standard of training in the industry could be improved. They tend, however, to follow one of two themes. The first is to ensure that instructor's own riding abilities are properly tested and continuously developed.

The second main comment is that instructors training capabilities need to be of a higher standard, either through further training or more rigorous inspection/regulation. Criticism of the current down-training model is implicit in some of these comments. About a third of those interviewed perceive room for improvement within their own training school, either in the form of better training for their instructors or better facilities. Cost and time are the key constraints.

ANNEX C: REPORT FROM OBSERVATION STUDY

Annex C is the written report produced by Roger J, the ex-Police rider contracted to ride the TRL Databike (a Yamaha Faser with video and sound recording capability) for the observation study. The views expressed reflect his observations during this part of the study as well as his considerable experience as a Police Rider and as an advanced motorcycle instructor who was involved with the Honda MAC training scheme.

Roger observed trainee riders from three different training organisations in the Thames Valley area and riders at varying state of training. Typically he would observe them at a training centre while they received initial instruction on an off-public road environment. He would also accompany them on public roads, where typically there would be two trainees and an instructor. Video recordings were made and these were 'dubbed' with commentary as appropriate. The following report is a summary of his observations as well as his views and opinions as a very experienced rider and trainer.

HOW INSTRUCTION IS DELIVERED

CBT

There are two key points to remember here. The first, this is basic training and no more, the second is that for most students their instructor will be their first authority on motorcycles. Very few students arrive for CBT with any real knowledge of how to survive in modern traffic conditions. In my role as a post test instructor I am constantly reminded by my students of what was instilled into them, and remembered from their CBT day and subsequent DAS courses.

DAS

The two major differences from CBT in delivery are:

The students are familiar with machine control and the ways of the provider, the second, is that the course will finish with a DSA test. The first point helps; the second point hinders, and puts pressure on everybody.

There was rarely any continuity of instructors or training companions. The variation of instructors could help as they all had their own way of achieving a satisfactory conclusion.

The DAS courses I attended fulfilled all aspects of the syllabus. None of the students I followed had come to DAS directly after their CBT day.

The delivery at DAS level was more personal as relationships began to develop. This inspired confidence as was generally to the benefit of all, briefings and de-briefings were considered most important. We must remind ourselves at this stage that the students are in radio communication at all times. The system is one way, so the student is not able to speak with the instructor. Hence constant stops for clarification are important. All the instructors had a clear, calm and well constructed way of deliver over the radio.

The beginning of most sessions usually had the students practising U turns. Even the most experience riders have some difficulties with this exercise. When and how much to practise was the issue here. Some student's threshold to keep at this exercise was better than others. How the instructors temper a balance between getting the task done and not causing too much distress was not obvious to me. Suffice to say the object was generally achieved but not without the odd tumble. At no stage was there any deterioration in the relationship between students and instructor.

Feedback at end of course
There were always time constraints. However, the instructors managed to part from the students with the minimum of loose ends. This was a difficult point because the students had reached overload by this stage.

Mostly the instructors delivered a narrative, with little input from the students. A high percentage of the pupils were youngsters, and were thus in or had just finished full time education. They were more able to ingest all the information. The more mature students needed their flagging enthusiasm to keep up with pace of delivery.

Most providers issued handouts at the end of each day. Some gave out large scale diagrams of procedures to adopt or approach to roundabouts and junctions. These were most helpful.

Qualifications
From the students point of view these were not questioned. Most instructors were on the bashful side of letting the pupils be aware of their vast experience. This did not cause a problem. They all exuded confidence, none referred to notes and picked their way through the syllabus with confidence. Again, time constraints did not permit too may questions from the students.

FINDINGS / OBSERVATIONS

CBT
By its very nature CBT was a complete package. There was no test at any stage, just constant assessment. The opinion and judgement of the instructor was the deciding factor. Hence the need for strict standards in the choosing and assessments of instructors.

During my time at these courses all of our chosen students were issued with a certificate. This is not always the case, according to the instructors. All our sample pupils issued with a certificate were more than competent at this level. To an experienced motorcyclist they may have appeared woefully inadequate. We must remind ourselves again this is basic training.

All students were positively encouraged to take further training before taking their 125 test. I am not aware of how may actually take up this offer. This is another area of training, which needs looking into to.

DAS
The students all gained confidence, skills and knowledge of the system required for a full licence. However there is no substitute for experience. The students in our sample had had previous riding experience so had this all important ingredient.

Students who go from CBT to full licence in a full package and on continuous days may lose out on this aspect of experience. I was not given the chance to observe this. This too is another area where training sequences could be reviewed. Statistics will bear out the success of the current system.

In summary all the riders on their DAS training were at all stages of this training competent enough to be of no specific danger. The furtherance of their training was to ensure a better understanding of the sequence of machine position and control on approach to hazards. Mastering their U turns was time consuming and sometimes counterproductive.

Radio systems
It is a requirement that a constant radio link is maintained at all times whilst out on the road. These systems varied a bit, all had to be compatible with the varying helmets owned by students. None of

the providers owned helmets had put in speakers. Generally the instructor had a built in system incorporating a microphone, which was usually voice activated. An inevitably delay was spent fitting and testing the radios each time. Some students found their earpieces uncomfortable.

Suggestions
Discussions with trainers and previous experience as a trainer suggests that it would be sensible for the CBT to be extended to a day and a half, viz no road riding element on day one. A full understanding of the Highway Code, with an oral test, would also be sensible before the training on a bike commences. This should ensure some commitment and elicit some road awareness.

DAS
Some form of break in training or a tiered licence system. This would allow pupils to gain some road riding experience before moving onto a full licence. This will be more expensive but would enable the much needed experience to be gained.

Providers
Bigger centres with a road layout to enable basic students to negotiate junctions and roundabouts before venturing out onto the public highway. An area under cover for the early elements of machine familiarisation would be an improvement.

Records of Progress
None of our 3 providers kept notes for CBT students. The students who had to return were all too well aware of their shortcomings.

For DAS students with the likelihood of students being taken out by different instructors, the providers kept a tick box system to ensure continuity. It was further agreed that a comparison could be made with dentistry; a careful look in someone's mouth would reveal all you needed to know. Similarly within the confines of the training school a subsequent instructor would be able to pick up on weak areas almost immediately.

A further key issue here is that pupils all varied enormously in their day to day ability to absorb skills, viz good and bad days – human nature. Hence written notes could not be relied upon.

The set-ups were all relatively small and in consequence close. Thus verbal reports to the controllers/secretaries ensured any glaring shortcomings would be conveyed to relevant instructors.

MAC Training - formerly Honda MAC
Honda MAC was launched in 1998 by the head of motorcycles at Honda UK who had been a traffic police officer for several years before joining Honda. He had always nurtured the idea of recruiting retiring police officers with Class 1 Motorcycling to "tidy up" existing licence holders who were buying his products. This was loosely targeted at the "born again", an identifiable insurance category.

The purchase of a motorcycle over 600 cc from a registered Honda dealer would entitle the customer to two days of training with a retired police advance motorcyclist. We, as instructors, were quick to point out to customers that this was not advanced training. I use the expression "progressive". Although it was free, the uptake was around 75%. This figure was lower in the Midlands and the North. We aimed to pair customers of similar ability together. This was found to be an ideal environment to learn. The success was down to several factors:

A national scheme promoted by Honda
- Free
- No test – no pressure

- The skills and reputation of class one police riders

Insurance companies recognise the worth and offered 10% discount

This scheme ran for four years. At its midway point, a surcharge of £100 was introduced. This served two benefits. The first was to slow down the workload, we had been over-run for two years, and secondly it showed a level of commitment on the part of the trainee. We experienced a degree of non-appearance on inclement days when the course was free.

Honda unfortunately withdrew the sponsorship in 2002. The scheme continued, retained the MAC half of its title, but without the price subsidy. Thus the cost returned to that charged by the ever growing band of private providers for "advanced" riding. The MAC scheme continues but the task of persuading riders to take advantage of it is difficult.

ANNEX D: THE "ADVANCED" PROJECT 'BEST PRACTICE' GUIDE

Annex D has been extracted from recommendations contained in the report of the EU ADVANCED Project, Bartle et al (2002.

GENERAL PEDAGOGICAL PRINCIPLES

a) The trainer is able to organise each activity into distinct phases:

- *Planning and introduction,*
- *Implementation and accompaniment during the exercise,*
- *Discussion/feedback and*
- *Evaluation (assessment to what extent the goal of the exercise has been reached).*

b) During the implementation phase of the training, the trainer understands and is able to use the following skills to:

- *Activating participants to think for themselves*
- *Providing information (and demonstrating where necessary)*
- *Questioning and feedback to consolidate on the message and dispel unintended side-effects of the training*
- *Stimulating the group process (exchange of ideas, debate, etc)*
- *Observing and interpreting non-verbal behaviour of the participants*

c) In conjunction with the lesson plan, the trainer can:

- *Distinguish between skills-based goals and risk awareness goals*
- *Understand the relevance and use of concept before experience, and experience before concept*
- *Assess the knowledge and experience of the participants*
- *Explain the sequence of events*
- *Adapt the exercise to the participant or participants*
- *Relate the exercise to a variety of real-life situations*
- *Give feedback, encourage individuals to give their views and relate these experiences and emotions to all the participants*
- *Summarise and evaluate the exercise on the basis of discussion and observation*

d) In terms of social skills, the trainer is able to:

- *Recognise, avoid and, if necessary, resolve conflicts between participants and trainer*
- *Motivate participants to reflect on, understand and accept their limitations (in terms of the vehicle, road environment/conditions and particularly their personal limits)*
- *Generate discussion, steer debates and make incisive remarks where necessary, both in group and one-on-one scenarios.*

e) The trainer can and should engage the participants more actively in training by:

- *Directly questioning participants, especially the passive or disinterested ones*
- *Linking the participants' experiences with training material*
- *Using active, participant-centred learning methods*
- *Rotating the roles of participants (e.g. during on-road training)*
- *Getting participants to assess - and give feedback on - each other*
- *Getting participants to give on-going commentaries during practical exercises*

DIFFERENTIATING BETWEEN PARTICIPANTS

The trainer understands the importance of getting each individual participant at the outset of the training (during introductions, exchange of experience and initial driving exercise) to reflect on and recount his/her motivations, needs, experience and character (attitudes).

The trainer is aware of fixed characteristics such as age and sex and their influence on driving behaviour. The trainer is able to identify whether participants are is over-confident or under-confident in their abilities and should be able to devise suitable methods to correct these imbalances.

The trainer is able to differentiate between participants who can learn more independently and through observing and listening to other participants and those who need more constant guidance from the trainer.

The trainer will spread his/her attention evenly amongst participants and will encourage passive individuals to participate in the group process.

The trainer is able to recognise participants who are naturally motivated to take part in the course and those who need encouragement to become motivated. He/she knows how to motivate both types.

Trainer is aware of participants with a low cognitive ability (slow learner and / or inability to process a lot of information at the same time) and is able to take measures to address this and, above all, check whether the message has been understood by such participants.

Trainers (and course providers) are able to take action to avoid excessive differences between individual participants in the same group. Such actions might includes:

- *Pre-selection in advance*
- *Pre-selection at the beginning of training*
- *Splitting into groups during particular parts of the course*
- *Individual training where necessary*

ASSESSING COURSE RESULTS

The trainer is able to assess participants during the course and at the end of the course. He is also able to engage the participants in assessing themselves. The trainer is trained to manage feedback sessions through moderation / coaching, questioning and summarising.

The trainer understands the different questioning techniques and where to use them in order to be able to assess participants, according to question type, answer type and target of question. Question types can be either open or closed and answer types distinguish between "questions of fact", in other words, reproducing factual knowledge, and "questions of attitude/opinion/interpretation" where individuals create their own answers. The targets of questions range from affective questioning which refers to attitude and emotions, cognitive questioning to test someone's knowledge or experience or to action questioning where the individual is asked to perform a certain exercise.

The trainer knows how best to test the factual knowledge, insight (ability to apply knowledge to other scenarios), skills and risk awareness of the participants.

The trainer is able to summarise (and encourage participants to recognise) the individual strengths and weaknesses of the participants and the most pertinent observations they have made (without imposing a pre-conceived view on them).

The trainer is able to relate, in a final feedback session, the results of the course to the original goals of the course. He / she uses this session above all to check what has been learned by the participants during the training and to encourage participants to reflect on how they may adapt their driving style accordingly.

TEACHING METHODS

The trainer is able to use a variety of teaching methods including:

- *practical training directly involving participants,*
- *demonstrations by the trainers,*
- *observing other participants during training,*
- *group and individual discussion and feedback,*
- *independent written exercises and tests,*
- *distance-learning (including e-learning),*
- *video shows, presentations,*
- *active group exercises such as role play,*
- *analysis of case studies,*
- *problem-solving exercises, etc.*

The teacher understands the need to vary methods during the training to maintain motivation and stimulate course participants. The trainer knows when a certain teaching method is appropriate during the course of the training.

The trainer knows what level of detail to go into for each target group, without over focussing on irrelevant information or alienating participants from the learning process.

The trainer is able to distinguish between skills-based training and risk awareness training and have the ability to deliver these messages clearly using the appropriate teaching methods (e.g. experience prior to concept or vice versa).

The trainer is familiar with participant-centred coaching/moderation techniques which encourage the participants to think for themselves and assess their own strengths and weaknesses:

- *questioning,*
- *summarising,*
- *self-evaluation exercises,*
- *guiding and use of group discussions amongst participants,*
- *individual attention, etc.*

TRAINING THE TRAINER

Continuous training

Regular, continuous training for trainers is a must. Continuous training is required for two main reasons.

- *Firstly, humans are creatures of habit, and trainers, like anyone else, will tend to develop habits and use the same techniques and routines, unless they are periodically given training and inspiration to change.*

- *Secondly, the road safety sector is in a constant state of flux: new perceptions of safe driving emerge, road regulations may change, new vehicle or road technologies are developed, etc.*

In addition, course providers may modify certain features of the course, which trainers clearly need to be informed and trained on.

Trainer audits/ quality controls

Trainer audits or quality controls are useful ways to gain feedback and to learn from independent experts. In the case of track-based courses, they are also vital for ensuring that the trainer does not deviate from the course manual in such a way as to incur the risk of undesirable learning effects amongst participants.

Audits are another form of training and feedback for trainers, and are particularly useful for trainers who tend to work individually, in other words in isolation from other experts. Such audits, where an auditor monitors the trainer during training, should be promoted in a positive way so that trainers perceive them as an opportunity to develop their professional skills, rather than as a test which is designed only to criticise.

The auditor could be an external expert (for instance from a road safety organisation with a mandate to check trainers) or an internal quality controller. It is vital, moreover, that the auditor is a specially trained expert for the job. In the absence of such expertise, the task of carrying out quality controls is pointless.

ADDITIONAL RIDER-SPECIFIC ISSUES

Recognising differences in ability

There will inevitably be differences in riding ability amongst course participants. This can be a source of tension for participants who are unsure of themselves, lack experience or are sensitive to the opinions that the rest of the group have on them. It is thus the trainer's responsibility to put the participants immediately at ease and to explain that these differences are perfectly normal and will be taken into account during the training. Where appropriate, ability levels should be ascertained in advance of the course (through a basic questionnaire or telephone discussion), in order to avoid massive differences between participants during the course. Due to the focus of rider training and the nature of motorcycling, differences in ability are more obvious and have more consequences for rider training than driver training.

Rider motivations

Rider motivation is an important issue for the trainer. Motorcycling course participants are generally motivated to participate in training. However, it is not clear what these motivations exactly are. Course participants may be purely interested in skills training, for example. Others may be meeting for the group spirit and to exchange information and ideas with like-minded people.

Consequently, it is important for rider participants to be motivated by the trainer to take full responsibility for their own actions on the road, because, in comparison to drivers, there is a smaller margin for error. Motivating them to assume such responsibility may be in conflict with the image they have of themselves - carefree, rejuvenated / young, with a desire for freedom of expression and identifying strongly with their motorbike. Over-optimism and competitive tendencies should also be addressed.

The on-road perspective

On-road rider trainers must be able to perform the difficult task of monitoring 1-3 participants at a distance during on-road training and as such must be highly qualified to do so. Track-based trainers should undergo basic on-road training (of trainers) to gain insight into the needs and difficulties of trainees on the road. With this perspective, this will help them relate track-based exercises to practical and important on-road scenarios, when dealing with their participants.

OTHER QUALITY ISSUES

Systematic feedback from – and evaluation of – participants

Feedback on the course should be collected, monitored and summarised on a systematic basis. Feedback can assess a number of different quality issues:

General satisfaction with the course and the quality of service

- *Satisfaction with the trainer (social behaviour, level of attention to individuals, clarity of messages, level of feedback, etc)*
- *Verification of whether the participants have understood the messages of the course*
- *Assessment of whether the group dynamics worked (observation, participation, listening and reflection)*
- *Assessment of whether individual participants have gained more insight into their own strengths and weaknesses which are relevant to driving*
- *Assessment of what has been learned in terms of knowledge, skills, attitudes and emotions*
- *Assessment of to what extent (and for what duration) training can affect the participants' driving behaviour and driving style.*

Such feedback, which can be oral and / or in the form of a questionnaire, is considered an essential part of quality control and can help course providers to identify weaknesses in their course and to address them accordingly.

Trainers and participants often have a different understanding of the goals and message(s) communicated during training and, clearly, this should be avoided (when the participants' interpretation contradicts or distorts the intended message).

Feedback from the participants in the final session is absolutely crucial, in order to recall the main messages of the day and consolidate on the participants' retention of these messages. Trainers should consider, for instance, the benefit of noting down the most pertinent and relevant remarks from participants on a flipchart. This is visually stimulating and has a longer lasting effect in terms of retention. In order to gain an impression of what participants remember and retain from the course, feedback via questionnaire a few weeks/months after the course would be useful. Ideally, well-designed before-and after evaluations should be performed from time to time, especially after changes in the course programme, trainers, etc.

Essential Documentation

Course content and goals, the training of the trainers and consumer information should be carefully documented and maintained.

To ensure a systematic approach to training and a uniform level of quality assurance, the goals, content, methods and role of the trainer should be written in a course manual. The course manual should not be so detailed and strict that it limits the trainer in his/her ability to show individual flair, but it should be carefully adhered to, especially where counterproductive effects could occur if an exercise is poorly delivered. The manual should outline the sequence of activities, range of methods to be used and tips should be provided for the instructor where appropriate.

A review of motorcycle training

This report summarises the findings from an in-depth study undertaken during 2005 in order to obtain an understanding of how current motorcycle training operated, and to obtain views from training organisations and from "umbrella" organisations on how training was being delivered and how it could be improved. Specifically, the project objectives were to identify participants' views on the core training and skills required by motorcyclists and to investigate what was considered 'best' training practice.

The report presents a view of motorcycle training that takes account of material obtained from a range of project tasks (interviews, surveys and observation), specific relevant EU projects, together with the team's knowledge of the general literature and research thinking on driver/motorcycle training, testing and licensing.

The report discusses ways in which some of the issues in motorcycle safety might be addressed by means of training and related interventions. It makes suggestions for good practice when delivering training and also identifies some changes to the testing/training/licensing system that could be considered as ways of improving motorcycle safety.

Other titles from this subject area

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