

## **Fortbildning**

### **Fakta**

Att köra motorcykel kräver mycket mer av föraren jämfört med bil.

Många anser inte att man behärskar körtekniken trots att man har genomgått körkortsutbildning. Det finns en stor grupp som fått körkortet på köpet med B-behörigheten. Det är grundorsaken till att många motorcyklister i Sverige och andra länder väljer att genomgå frivillig fortbildning.

SMC-försäkringen i Folksam ger premiereduktion för den som genomgått fortbildning.

Många dödsolyckor beror på bristande körteknik, framförallt då det gäller kurvor och bromsning.

SMC har 200 kurser årligen som riktar sig mot alla typer av förare och två typer av kurser: grundkurs (grundläggande körteknik, manöverprov och bromsteknik) samt broms- och kurvkurser på gokart- och storbanor. Antalet deltagare per år ökar och uppgår till omkring 4000 personer. Utvecklingen är liknande i resten av Europa och världen.

### **Vad pågår nationellt?**

SMC har sedan 1970-talet bedrivit fortbildning. De senaste åren har kurserna utvecklats i rasande fart.

Samtliga kurser drivs enligt en nationell standard av samtliga 21 distrikt. Grundkurserna bedrivs numera ofta på gokartbanor enligt ett gemensamt nationellt koncept. Broms- och kurvkurser/sporthojkurser bedrivs på storbanor av SMC centralt och distrikt. BKK är numera indelad i fyra steg. SMCs instruktörer har två dokument som riktlinjer: Full Kontroll och Råd och Riktlinjer. Alla som genomgår en kurs inom SMC School 2009 kommer att få Full Kontroll med sig hem.

Antalet deltagare i SMCs fortbildning ökar varje år.

Av 1 855 utvärderingar efter BKK/SHK 2008 svarade 99 % att man fått kunskaper man kommer att komma ihåg och dra nytta av när man kör motorcykel nästa gång. 99 % svarade att man kommer att återkomma till SMCs fortbildningar för att gå nästa steg.

SMC utbildar varje år ett stort antal instruktörer. SMC har fått bidrag av Vägverket, NTF och Folksam till fortbildning.

Tillverkare diskuterar fortbildning med SMC att erbjuda dem som köper nya motorcyklar.

En utvärdering av SMCs sporthojkurser pågår inom VTI. I övrigt har SMCs kurser inte utvärderats.

SMCs fortbildning ifrågasätts, bl a utifrån TÖIs litteraturstudie och metaanalys från 2002 på uppdrag av Vägverket. Litteraturen som studerats är från åren 1975-1992. Den säger följande: ”Man finner inte något belegg för att frivilligt vald utbildning efter att man har tagit körkort haft någon effekt på olycksrisk, tvärtom kan frivilligt vald utbildning öka olycksrisken. Det är ovisst varför detta sker. Man kan tänka sig att förarna känner sig mer kompetenta efter genomförd upplärning, samtidigt som de har lärt irrelevanta färdigheter eller inte reellt sett har fått ett ökat färdighetsnivå efter kursen. Å andra sidan tycks obligatorisk upplärning innan man skaffar körkort verka olycksreducerande. Det kan med andra ord inte uteslutas att vissa typer upplärning kan verka olycksreducerande.

Man har kritiserat utbildningskurserna för att lägga mest vikt på färdighetsträning och lite vikt på motiverande faktorer, det vill säga den motivation som ligger bakom medvetet risktagande i trafiken. Ett moment i detta sammanhang är att det inte nödvändigtvis är körfärdigheterna i sig som förorsakar olyckor, men hur man väljer att använda sina färdigheter. Vidare kritiseras upplärningen för att fokusera lite på hur man kan uppfatta farliga situationer för att undvika att olyckor inträffar.”

### **Vad händer i Norden?**

**Norge:** Full Kontroll-konceptet ingår i fortbildning som sköts av privata aktörer. Vissa kurser genomförs i mc-klubbar och av NMCUs distrikt.

Två utvärderingar har gjorts. SINTEF, på uppdrag av Statens Vegvesen, Vegdirektoriatet, 2002.

Fortbildning är en del av Nasional Transportplan 2002-2011 som nämner fortbildning som en viktig del för att öka MC-säkerhet. SINTEF utvärderade tre olika Full Kontroll-kurser. Slutsats: Fortbildning har positiv effekt. Kursen ger förbättrade körtekniska färdigheter. En del av upplägget kan användas i den grundläggande körkortsutbildningen. Visar att vissa kursmodeller fungerar bättre än andra.

Diskuterar ökat risktagande men anser ändå att de positiva effekterna är större.

<http://www.svmc.se/upload/SMC%20centralt/Dokument/rapporter/Vurdering%20av%20etterutdaning%20skurs%20för%20mc.pdf>

Torbjørn Tronsmoen, Høgskolan i Lillehammer, på uppdrag av Statens Vegvesen, kontoret för trafikpedagogik (en fortsättning av SINTEFs studie ovan)

### **3. Vil økt ferdighet som følge av kurset eventuelt medføre mer risikabel kjøring og endret førerattferd som følge av en overestimering av egne ferdigheter og falsk trygghetsfølelse?**

For det første viste det seg at ferdigheten forbedret seg signifikant i løpet av kurset. For det andre fant jeg også signifikante endringer mellom kursgruppe og kontrollgruppe på subjektiv ferdighet, opplevd risiko, trygghet og sikkerhetsmarginer. Slik sett lå alt til rette for den forventede atferdsendringen. Det tredje viktige funnet i undersøkelsen var imidlertid at landevegstestene ikke viste noen slik atferdsendring. Det viste seg nemlig at selv om begge gruppene økte farten noe fra førtest til ettertest, så var det faktisk kontrollgruppa som økte farten mest. Tendensen var gjennomgående slik på alle målingene, men forskjellene mellom de to gruppene var ikke signifikante. Det er likevel rimelig grunn til å tro at kurset ikke ga utilsiktet effekt på kjøreatferd i form av høyere fart, slik jeg hadde forventet.

**Sett i lys av at vi fikk en signifikant økning av ferdighet, men ikke en endring i atferd som kunne tilsi at effekten av økt ferdighet ble redusert, gir dette grunn til å tro at kurset må ha hatt en reell effekt på sikkerhetsmarginene og dermed på trafikksikkerheten for de som deltok på kurset.**

Dette står i motsetning til resultater fra de fleste andre undersøkelser, der de fleste riktignok ikke er eksperimentelle, og der det stort sett er sammenhengen mellom kursdeltakelse og ulykker som er målt. Det er grunn til å se nærmere på aktuelle modeller som forklarer trafikantatferd. Gjennomføring av flere undersøkelser som denne vil kunne bidra til å avklare om funnene fra undersøkelsen har en mer generell gyldighet. I tillegg er det en rekke andrespørsmål som er tatt opp i undersøkelsen og som bare videre forskning kan gi svar på.

For det første er det aktuelt å vurdere hvordan begrepet subjektiv ferdighet skal forstås. For det andre er det også et behov for i større grad å trekke motivasjonsforhold inn i vurderingen av trafikantatferd. Det vil være en fordel om en klarer å finne ut mer om generelle og individuelle forhold som kan bidra til å belyse de valg trafikantene gjør på veien. Spesielt er det interessant å se nærmere på hva som skiller motorsykkelkjøring fra bilkjøring, og hva som er motorsykkelkjøringens spesielle egenart. En ting er å måle effekten av et kurs. En effektmåling alene er lite verdt dersom den ikke samtidig klarer å relatere funnene til opplegget og gjennomføringen av det opplæringstiltaket en har målt effekten av. Dette er nødvendig fordi det pedagogiske siktemålet om stadig å forbedre opplæringen er vesentlig, ikke minst i de (mange) tilfellene der opplæringstiltaket ser ut til å være feilslått i forhold til å fungere som et trafikksikkerhetstiltak. I så måte er det generelt ønskelig å styrke relasjonen mellom selve målingen av effekt og beskrivelse og vurdering av opplæringstiltaks gjennomføring.

<http://www.svmc.se/upload/SMC%20centralt/Dokument/rapporter/Effekter%20av%20ferdighetskurs%20för%20mc.pdf>

**Danmark:** Alla som köper en motorcykel i Danmark blir bjuden på en kursdag av den danska motsvarigheten till McRF. DMC bedriver fortbildning och kurserna är alltid fulltecknade.

**Finland:** MP69 driver fortbildning för motorcyklister sedan många år. Intresset är mycket stort. Har översatt och tryckt upp Full Kontroll till finska och säljer boken till motorcyklister. Även SMoto arrangerar kurser.

#### **Vad pågår i Europa?**

**Luxemburg:** Jesper C besökte Luxemburg på uppdrag av FIM och regeringen där. Man har skapat ett samarbete mellan ett antal intressenter där fortbildning är ett viktigt inslag. En ny web har skapats:

<http://www.fitforyourbike.lu/>

**Tyskland:** Över 50 000 motorcyklister fortbildades 2008 genom ADAC. Man har kurser i olika nivåer för olika målgrupper. Ett stort antal egna anläggningar.

[http://www.adac.de/images/%C3%9Cbersichtskarte%20Trainingsanlagen-FSZ%20ohne%20Preise%20Stand%202002-09\\_tcm8-29906.pdf](http://www.adac.de/images/%C3%9Cbersichtskarte%20Trainingsanlagen-FSZ%20ohne%20Preise%20Stand%202002-09_tcm8-29906.pdf)

**NL:** Bedriver fortbildning på hög nivå till många motorcyklister. Har inte hittat informationen.

**Spanien: Executive summary: har fyra punkter som handlar om fortbildning. Measure 1. Strengthening road safety training in motor bike access tests**

**Measure 6: Incentives for participating in courses and obtaining certificates:** Setting up a scheme of voluntary and incentivized road safety courses for motor bikers having an impact on a significant proportion of the universe of drivers and which strengthen three aspects: avoiding risk driving, training the driver in respect of hazardous situations, and adopting good practices regarding driving and equipment. The course will have a short duration (one or two sessions) and the contents thereof will be predominantly practical, allowing, where appropriate, to obtain a certificate. The use of driving simulators when giving the established by two ways:

- Redemption of sanctions with guidance for risk drivers (e.g. the city council of London cancels certain sanctions, 3 points and 60 pounds, in exchange for the driver assisting to a one-day training course for 72 pounds).
- Obtaining direct incentives such as discounts on insurance premiums or monetary or non-monetary contributions of insurance companies, fuel coupons, discounts on security equipment for motorbikes.

**Measure 7. Road safety courses for professional communities**

It is esteemed that about 110,000 professionals (including those contracted or subcontracted by private companies, the security forces and bodies of the three administrative levels and other public employees) are using motorcycles or mopeds as a working tool. This measure pursues the inclusion of road safety courses into the training plans of all these public and private bodies. The course will focus on the avoidance of risk driving, training the driver in respect of hazardous situations, and adopting good practices in respect of driving and equipment).

**Measure 26. Fostering companies to carry out follow-ups on risk driving and road safety courses by their employees:**

The target of this measure is to achieve that companies employing professional motorcycle and moped drivers carry out efficient follow-ups on measures that foster road safety as set forth by the strategic plan addressing these professionals, by:

- Introducing road-safety courses into their training plans.
- Effectively realizing these courses by employees and subcontractors.
- Assessing the courses in view of a steady improvement thereof.

The implementation of this measure will require a cooperation agreement between organizations employing motorists, the public administration and other institutions having an interest in road safety.

**UK:**

UK Government strategy; Innehåller ett stort antal punkter om utbildning för MC-förare. “Inability of motorcyclists to turn properly is often cited as a problem, and it is notable that the left hand bend manoeuvre features strongly in accidents – 23% of manoeuvres leading to a fatality. Sports bike riders and those in the 26-40 age group accounted for the majority of rural bend accidents.”

**Action (xxv): we have commissioned in-depth research that will investigate current motorcycle training courses to identify good practice and provide guidelines for standardising core elements of both pre-test and post-test training. This research will also look at subsequent accident rates of trainees following different training regimes.**

**Action (xxix): the DSA is working with the Motorcycle Industry Association to develop national standards for post-test training for full motorcycle licence holders but especially newly qualified riders, those upgrading their motorcycles, and those returning to motorcycling after a break.**

We place great value on post-test training. This can take riders beyond the basic skills they need to take to the road to a level that will improve their own and others' safety, as well as allowing them to make better use of the road and gain more enjoyment from the riding experience. We welcome the training offered by organisations such as RoSPA and the Institute of Advanced Motorists and those manufacturers who provide training courses.

Structured practical training delivered by trainers needs to be of the right standard, and should incorporate a national standard training modular syllabus containing a menu of competences to be delivered, depending on the appropriate package for individual riders. These national standards would be voluntary but certification of training companies would provide riders with assurance that they would be receiving good Government and industry approved training.

**Action (xxxii): we would like to see greater availability of insurance discounts for recognised rider training skills, and greater consistency in the level of discounts available and we will ensure that the insurance industry is kept abreast of training development.**

Olyckor med personskador har minskat med 10 % bland dem som genomgått BikeSafe i London och ytterligare 5 % i olyckor med andra fordon. Visar att de som genomgått kurs skadas mindre och är mer uppmärksam på andra fordon. <http://www.bikesafe-london.co.uk/>

[http://www.local-transport-](http://www.local-transport-projects.co.uk/files/BP1%20001%20Bikesafe%20London%20Scootersafe%20_v1_.pdf)

[projects.co.uk/files/BP1%20001%20Bikesafe%20London%20Scootersafe%20\\_v1\\_.pdf](http://www.local-transport-projects.co.uk/files/BP1%20001%20Bikesafe%20London%20Scootersafe%20_v1_.pdf)

Ett annat projekt i UK är Advanced Rider: <http://www.advancedmotorcycletraining.com/>

Hittar inga effektsamband, däremot synpunkter från MC-förare:

<http://www.advancedmotorcycletraining.com/ridersviews.htm>

RoSPA Advanced Riders: Hållit på med fortbildning sedan andra världskriget. I deras MC-policy finns fakta om effektsamband fortbildning- icke fortbildade förare:

An evaluation of a one-day motorcycle training course<sup>32</sup> in 1987 (before CBT) compared a group of 78 riders who undertook the training programme, with a matched control group of 62 learner riders who received no training. Both groups were tested immediately after the training course and again two months later. The study concluded that the trained riders committed fewer errors immediately after they had been trained. Over the following two months the skills of both groups improved, but the trained group still committed fewer errors. The untrained riders committed two - two and half times as many errors, which were mainly poor rearward observation and problems maintaining balance.

Enligt RoSPA utvärderar Department for Transport värdet av frivillig fortbildning i UK.

En rapport från 2003:

<http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme2/scopingstudyonmotorcycle.pdf>

**Nord Irland:** Utvärdering av BikeSafe: **Views of Bikesafe Assessed Ride Scheme**

- The vast majority of respondents (97.4%) found the Bikesafe scheme useful, with all but four agreeing that they would recommend the scheme to other people (99.0% of respondents).
- The assessed ride seems to have struck the correct balance, with a majority of respondents indicating that the scheme covered what they expected, that the ride took the right amount of time and was on the kind of roads usually used. The vast majority of respondents also felt that the scheme was not too theoretical.
- In terms of the effectiveness of the scheme, 87.1% of respondents felt that the scheme had made a difference to how they ride their bike. Furthermore, more than nine out of every 10 respondents (91.4%) disagreed with the statement that they had forgotten a lot of what they learnt on the scheme.
- The main areas that respondents found useful with the assessed ride scheme were,
  - Good advice/ assessment
  - Road craft/ positioning on the road
  - Hazard awareness
  - Cornering safely

**Vad pågår globalt?**

**OECD:** Utbildning och fortbildning kom på första plats då världens samlade expertis fick säga vilken faktor som ökar MC-säkerheten mest. Man framhöll också behov av forskning.

**1. Training programmes:** Countries have different training needs, based on their vehicle fleet and training resources. Motorcycle training should therefore build on existing standards, focus on risk awareness and risk avoidance, and develop an understanding of the rider/motorcycle capacities and limitations.

**3. Research and evaluation:** Counter measures need to be based on scientific research into driver and rider behaviour and before-and-after evaluations should be conducted.

**What are the most effective ways of improving population health through transport**

**interventions? Evidence from systematic reviews (Cochrane collaboration):** Utvärdering av mängder av forskning; Driver improvement and education programmes: Resultat; major flaw. 24/59 included programmes resulted in statistically significant reductions in violations (4–21%) but 3/59 resulted in significant increase in violations of 9, 14 and 40%. Crash reductions of 6–32% in 10/59

included programmes but 3/59 resulted in crash increases of 20, 30 and 46%. No proven effect of individual vs group interventions, direct vs indirect approaches or targeting certain types of violation. RCTs show increase in crash involvement and violations as a result of high-school aged driver education courses. Ecological studies show both increases and decreases in crash involvement after driving education programmes and increases in licensure rates in 16–17 year olds.

Man säger också: Driver improvement and education courses may increase accidents by encouraging greater numbers of inexperienced drivers on to the roads. We agree with comments made in a review published during the preparation of this paper that they cannot be recommended.

**USA:** Enligt studien nedan gick 140 000 motorcyklister en kurs i USA under 1997.

Motorcycle Safety Foundation: Är ett fristående organ som bedriver grund- och fortbildning över hela USA. Since March 1973, the MSF works with the National Highway Traffic Safety Administration (NHTSA), state governments, the military and other organizations to improve motorcyclist education, training and operator licensing. The MSF is a national, not-for-profit organization sponsored by the U.S. manufacturers and distributors of BMW, BRP, Ducati, Harley-Davidson, Honda, Kawasaki, KTM, Piaggio/Vespa, Suzuki, Triumph, Victory and Yamaha motorcycles.

**Utvärdering av utbildning: Motorcycle Safety** FRANK BEDNAR, *Federal Highway Administration* JOHN W. BILLHEIMER, *SYSTAN, Inc.* KEITH MCREA, *Virginia Department of Aviation* SCOTT A. SABOL, *Vermont Technical College* JOEY SYNER, *National Highway Traffic Safety Administration* DAVID R. THOM, *Head Protection Research Laboratory*

### **Effectiveness**

The ultimate measure of the effectiveness of any motorcycle training program is its impact on crash rates. During the 1980s several states and Canadian provinces attempted to assess the impact of motorcycle training on crashes, only to obtain decidedly mixed results. In the 1990s an extensive evaluation of the California Motorcyclist Safety Program (2) used trend analysis and matched-pair comparisons to isolate the impacts of a state wide training program initiated in 1987. **During the first 10 years of the program, motorcycle crashes in California dropped 72 percent, a decline far greater than that in the rest of the United States (55 percent) during the same period.** A matched-pair analysis showed that the crash rates among untrained novice riders were more than double those among their trained counterparts for at least 6 months after the training, when riding experience begins to have a leveling effect on the differences between the two groups. In addition to lowering the crash rates among novice riders, research shows that formal training classes advance the use of protective equipment and discourage unpromising riders from becoming motorcyclists.

### **Look to the Future**

Motorcycle rider education and training are the centerpieces of a comprehensive motorcycle safety program. There is a nationwide need to keep quality rider education and training programs available and accessible to all novices applying for first license and current motorcyclists seeking to improve their knowledge and skills. Meeting this need implies a requirement for the associated curriculum standards, sites, instructors, training motorcycles, protective gear, educational material, funding, and administrative support.

**Canada (ur RoSPAs motorcykel policy):** Motorcyklister som genomgått utbildning har betydligt

lägre olycksfrekvens jämfört med dem som inte har det: A Canadian study<sup>33</sup> compared 346 trained riders with a control group of 346 untrained riders (matched for age and sex) over a five year period from 1979 to 1984. It concluded that age was the strongest predictor of motorcycle accident involvement. However, it also found that trained riders had a lower accident rate than untrained ones, and that their accidents tended to be less severe. **Overall, the trained group had 64% fewer motorcycle accidents than the untrained group (they also had 32% fewer accidents in all vehicles, including motorcycles).** The number of accidents for both groups decreased with each successive year following gaining their motorcycle licence. The study also found that the benefits of

training in reducing accidents were stronger for riders aged 25 years or less than for older riders, and that the effects were stronger in the short term than in the long term.

### **Australien: Enkät 2001, 796 svarande: Liz Rome m fl:**

A major focus of the study was to find out about motorcyclists involvement in training, what sorts of courses they had undertaken and the perceived benefit.

Seventy two percent of respondents had received some form of rider training and almost all of these, (69%) had undertaken training in the last 4 years. As might be expected a higher proportion of younger riders had undertaken training and was predominantly the compulsory training required for licensing. Less than 10% of younger riders had undertaken any post license rider training, 33% of riders between the ages of 25-39 and 45% of riders over 40 years had completed advanced road craft courses. A smaller proportion (11%) had completed high level road based training courses. Asked about the value of the training courses they had completed, most respondents said that it had improved their road safety skills (95%-99%) and machine handling skills (94%-98%). A slightly lower proportion (90%-94%) reported that their courses had improved their confidence on the road.

**Ur Positioned for Safety:** Most motorcycle crashes on curves do not involve another vehicle but even when they do, the key vehicle is just as likely to be the motorcycle (53%). Only 16% of all motorcycle crashes on curves were due to the actions of another vehicle, compared to 46% of crashes on a straight road. The majority (71%) of fatal single-vehicle motorcycle crashes were on curves.

Riders aged under 26 years in single-vehicle crashes on curves were more likely to have exceeded the posted speed limit (41%) compared to riders aged 40 or over (15%).

The majority (63%) of motorcycle crashes on curves in NSW were defined as being associated with excess speed,

Apart from the contribution of road surface hazards, motorcycle crashes on bends are generally regarded as being due to rider error. A number of studies have found that the causes of such crashes are most likely to be sliding out and falling due to over-braking, running wide due to excess (inappropriate) speed, or 'under cornering' (Hurt, Ouellet & Thom, 1981; Haworth et al., 1997; RoSPA, 2001; ACEM, 2004; Clarke et al., 2004). While the risk and severity of injury increases with speed, the conclusion of all of these studies was that high-speed riding is not the main area of concern, and that interventions should be directed towards riders' approach to braking and cornering.

### **Monash University:**

#### **EVALUATION OF RIDER TRAINING CURRICULUM IN VICTORIA Literature review**

Most of the evaluations of training courses set out to determine whether the courses had any effect on licensing rates, crash involvement, infringements and/or the extent and nature of riding.

Methodological deficiencies prevented these aims being achieved in most studies. Given that these evaluations did not set out to compare the effects of the attitudinal and vehicle control components of training, it is not surprising that they contribute little to addressing this issue. Generally, the courses focused on vehicle control skills to train riders to pass tests which emphasised vehicle control skills. Some evaluation studies suggested that riders who scored higher on vehicle control skills in some tests had more crashes later. The newer tests requiring higher levels of vehicle control skills (such as the Motorcycle Operator Skill Test) did not reduce crash rates. Conversely, there was some suggestion that training in cognitive skills can improve these skills and reduce crash involvement. However, to ensure that cognitive skills components receive sufficient focus in training, there is a need to ensure that they are emphasised in the learner permit and licence tests.

#### **Review of current motorcycle training courses**

The review of the delivery of the course components found that vehicle control skills receive about two to three times as much course time as attitudinal skills in both the learner permit and licence courses. Yet all the providers felt that the students, particularly at learner level, had insufficient skill and inadequate attitudinal training to ensure their safety while learning on the road. Commercial considerations severely constrained the time available to teach both attitudinal and vehicle control skills.

Some possible solutions appeared to be increasing the efficiency of delivery of courses by improved time management (reducing waiting times and delays between components) and improving the effectiveness and consistency of presentation of the attitudinal components (including using overhead

transparencies). Even if these improvements are implemented, it is still likely that trainees may continue to have insufficient skill and inadequate attitudinal training to ensure their safety while learning on the road.

The review also identified a need to develop a hazard perception program and test that can be introduced by all training providers.

### **Monash University , Best training methods for teaching hazard perception and**

**responding by motorcyclists:** This project is the first stage of a program of research into hazard perception training for motorcycle riders. Future stages of the program will investigate what type of environment can be used to teach hazard perception and responding, for example a simulator environment or a combination of off-road and simulator training.

The first report of Stage 1 (Haworth, Mulvihill & Symmons, 2005) summarised the research that had been conducted into hazard perception and responding, assessed what could be learnt from motorcycle crash data and described current motorcycle simulators. It concluded that hazard perception and responding is more important for riders than car drivers, because riders cannot rely on other road users seeing them and because the severity of the consequences of failures of hazard perception and responding are greater for riders. This report describes training methods for teaching safe motorcycling hazard perception and responding and examines the potential usefulness of simulation in motorcycle rider training.

In this report, the model of incremental transfer learning is used as a framework for learning hazard perception and responding skills. In this model, learners (not just LEARNERS - holders of motorcycle Learner Permits) transfer the skills that they have acquired in relatively simple environments to more complex environments. This learning model was the basis for DriveSmart, the training product developed by MUARC for the Transport Accident Commission (TAC) for novice car drivers.

All methods of training are simulations of the real world. They differ in terms of how much they look and feel like the real-world task (physical fidelity) and in terms of how much they share the same functions and responses as the real-world task (functional fidelity). For example, a PC-based training program has less physical fidelity than a set of on-road training exercises for teaching effective braking.

It is assumed that skills are learned in stages, with improving performance as the learner moves from *knowledgeable*, to *prepared*, to *trained*, to *skilled*, to *expert*. Which method of training is best depends on the stage in skill learning. There is generally less need for physical resemblance (physical fidelity) or functional similarity (functional fidelity) in the early stages of learning than in later stages. However, when the expert stage is reached, the wealth of experience means that the need for physical fidelity is reduced.

Table 1 classifies training methods in terms of their levels of physical and functional fidelity. Those methods listed toward the lower-right corner of the table would typically be employed early in training, while those listed toward the upper-left corner would be employed in later stages of training. Methods in the upper-right corner would typically be used for skills that have strong cognitive (thinking and decision making) aspects, while the lower-left corner would be used for skills that have strong psychomotor (perceiving and responding) aspects.

### **Vad är viktigt ur ett MC-perspektiv?**

Olyckstyperna för motorcyklister är liknande över hela världen. Det handlar om bristande broms- och

kurvteknik samt olyckor i korsningar. Hur kan motorcyklister bli bättre på att hantera detta och medvetna om riskerna i fortbildning?

Hur mycket ska man lära sig i grundutbildningen?

Att man behärskar körtekniken; bromsa, gasa och svänga.

Att man har självförtroende och vet att man klarar en oväntad situation.

Att man är medveten om riskerna.

Att man känner sig säker när man kör motorcykel.

Säkerhet ger ökad körglädje.

Säkra förare ger färre olyckor, lägre olyckstal och därmed lägre premier.

Att man får bra kvalitet till ett rimligt pris när man går MC-kurser.

Att kurserna ger rätt kunskap för att hantera motorcykeln i alla situationer.

Får man premierreduktion är det en bonus.

### **Vad saknas?**

Det finns ingen åtgärd för att öka motorcyklisternas säkerhet där åsikterna går mer isär än då det gäller fortbildning. En gemensam sak som påpekas world wide är att riskutbildning måste ingå.

En klar viljeyttring i Sverige: Tror vi att motorcyklister har något att lära genom fortbildning?

Utvärdering av svensk fortbildning, ur flera perspektiv; motorcyklistens egen uppfattning, minskad olycksrisk, vilken typ av utbildning/fortbildning är bäst för att minska olyckor?

En svensk standard för hur fortbildning ska se ut och genomföras.

Aktuell forskning; en engelsk studie bör publiceras när som helst som visar effektsamband i UK.

En amerikansk rapport ska komma 2010 som visar effektsamband av MSFs utbildningar.

Effektsamband finns men de är motsägelsefulla.

Koppling till körkortsutbildning och den kommande riskutbildningen. Vad finns i fortbildning som bör ingå i grundutbildning?