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## **What Can Riders Tell Us About Motorcycle Rider Training? A View From the Other Side of the Fence**

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### **Abstract**

Past research has found little empirical support for the effectiveness of motorcycle rider training as a road safety countermeasure. Arguably, one potential reason for this lack of effect is that conventional/current training processes do not typically facilitate effective levels of learning in trainees. Within the broader adult education literature there has been an overwhelming shift towards learner-centred (or student-focused) approaches to teaching and training in recent years. However, to date there have been no studies published that have specifically explored *how* riders learn during training. This qualitative study explored motorcycle riders' (n=40) experiences of licence training with reference to adult learning issues such as learning styles and motives for training. Additionally, riders' subsequent on-road experiences were reconciled with the information learnt during training. Results are discussed in terms of how motorcycle training should be underpinned by accepted adult learning principles and the influence that the licensing system may have on learning outcomes.

### **Introduction**

Despite continued sincere efforts by many rider training practitioners to improve the safety of trainees, research has found little empirical support for the effectiveness of motorcycle rider training in terms of subsequent crash reduction (see a review by Haworth & Mulvihill, 2005). However, it is unknown whether current training practices are adequately informed by sound, contemporary teaching principles. Unfortunately, there has been a lack of systematic application and evaluation of such principles within the driver/rider training industry (Bailey, 2005; Jerrim, 2003). It is posited that for the desired outcome (learning) to be achieved from any training program it must rely not only on comprehensive, relevant content but also on effective delivery methods that consider and attend to student perspectives of the learning experience (CIECA, 2002). The questions of *why* people are motivated to participate in training and *how* people learn have been largely neglected in road safety research. The essence of the learner-centred approach is best highlighted in the following quote from the EU *Advance* project; “It is not the message which is delivered, but the message which is received by the participants that counts” (CIECA, 2002, p3). Therefore, if the student does not perceive something as worthwhile they will disengage from the learning situation regardless of how valuable the content may be in objective terms.

The diverse range of individual differences across the motorcycling community dictates that effective training needs to accommodate a range of possible influences on learning for students. However, if trainers attempt to impart knowledge to students without acknowledging each student’s personal frame of reference (past experience, beliefs, knowledge base) there is potential for the information to be lost to trainees. Learning outcomes in adult education have been found to be dependent upon a complex array of factors including student approaches to learning (Entwhistle, 1997), learning orientation/motivations (Beaty, Gibbs, & Morgan, 1997), learning styles (see Delahaye, 2005), students’ prior experiences (Prosser & Trigwell, 1999), and their perceptions of teaching and assessment methods (Ramsden, 1997). Biggs (2003) asserted that effective teaching methods must accommodate these individual differences to facilitate deeper levels of understanding of subject matter.

A deep approach to learning has been described by Entwhistle (1998) as involving an intention to understand ideas by relating new information to existing knowledge, looking for underlying principles and patterns, critically assessing information, and developing a genuine interest in the subject. This approach has been consistently shown to result in higher quality

learning outcomes (Prosser & Trigwell, 1999). Contrary to the deep approach, a surface approach is defined as an intention to merely cope with training requirements rather than to develop any real understanding (Entwhistle, 1998). This is associated with memorizing facts without reflection, treating the course as unrelated pieces of information, lacking understanding of new material, and feeling undue pressure. The implication of this approach for rider training is that whilst a student may do enough to pass the license test/competencies, they may have never fully understood how basic concepts in training relate to their safety and the possible consequences of their behaviour.

It is also important to acknowledge that adults undertake training with a range of motives that may impact upon the way that they learn, and subsequent outcomes. These may be composed of intrinsic and extrinsic components (Beaty et al, 1997). For instance, one student may view their course as a means to obtaining sufficient training and skills to enhance their personal safety within the on-road environment (intrinsic), whilst another may view it merely as a means to get their licence (extrinsic). As such, these motives influence the depth of learning that an individual will engage in. The validity of learning objectives and assessment in regard to safety outcomes within the licensing system is therefore paramount.

Whilst a learner-centred approach to training delivery has been advocated by the European Nations (e.g. the EU ADVANCED project), a comprehensive review of the rider training literature found no published studies that specifically investigated the possible strengths and/or weaknesses of this approach. Bailey (2003) studied Australian driver trainers to ascertain whether they adopted a learner-centred approach and found that many driver trainers were informally integrating this approach to some degree. However, the scope of Bailey's study did not extend to the examination of student perspectives of such training. In contrast, this qualitative study aimed to explore rider trainees' views about pre-licence training regarding how training information is retained and whether teaching approaches were consistent with established adult learning principles.

## **Method**

Qualitative data regarding student perceptions of motorcycle training was gathered using focus groups conducted between September 2006 and February 2007. Participants were

recruited from the existing client base of Queensland's largest motorcycle training provider. Specifically, a representative sample of people who completed pre-licence training through the Queensland Government's Q-Ride<sup>1</sup> program in the past 12 months was sought in regard to age and gender. To recruit participants a mail-out to 600 past trainees was conducted. The final sample consisted of 40 participants (32 males, 8 females) across 10 focus groups. Focus groups were conducted until saturation of the data was achieved (i.e. until no new/unique information was forthcoming). Auditory recording of each session was undertaken. Additionally, notes were taken by two researchers (the facilitator and an observer) to enhance the reliability of the data. Nine standardised open-ended questions were utilised in each focus group (see Appendix A). However, it is only within the scope of this paper to report on five specific questions as noted in the Appendix. Prompts were employed by the facilitator in some instances to further explore key concepts that arose during discussion. The questions were primarily based on existing concepts from the adult learning literature, however on-road riding experiences were also discussed in order to explore how information learnt during training transposed to the "real world" riding environment. Focus group discussions ranged from between one and two hours in duration. Conceptual content analysis was undertaken to identify key themes in the data. The qualitative method was chosen in order to obtain a richness of the data that could not be obtained using quantitative measurement, however limitations of this methodology are discussed in a latter section of this paper.

## **Results**

Two key overarching themes emerged from the data:

- 1) that a range of individual learning needs exist for motorcyclists during training and a variety of teaching methods are required to address these; and
- 2) that much information from training does transpose to actual on-road riding following licensing, however the most salient information is that which is personally encountered and reinforced in the on-road environment.

Relevant data relating to each of these themes is presented in turn below.

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<sup>1</sup> Q-Ride is the voluntary, competency-based motorcycle training/licensing option within Queensland where training is delivered by registered service providers throughout the State. In contrast, Q-Safe is an alternative licensing option where riders can do a skills test directly through Queensland Transport with no formal pre-licence training.

***Theme 1: A range of individual learning needs exist for motorcyclists during training and a variety of teaching methods are required to address these.***

There were several conceptually different reported influences upon learning during training. Student motivations for attending the course appeared to initially influence whether trainees were receptive to information presented in training. Four main categories of motives were found: purely to obtain a licence; to learn about *safety* aspects of riding; to learn or improve riding *skills*; and to increase *confidence*. Whilst it would be expected that those participants who were purely extrinsically motivated (i.e. just to obtain their licence) may not be oriented towards learning, it was apparent in the data that the instructors did actually engage at least some of these trainees.

*“I came here and I just wanted a motorbike licence.....but once I got into the courses it was really enjoyable and it gave me a thirst to keep learning” (40+male, Group 1).*

*“(I wanted) to be street legal in the eyes of the Government. But this course taught me so much more than that. How to be a safe rider and an alert rider” (male, Group 5).*

The concept of past experiences influencing learning also revealed individual differences that needed to be accommodated during training. It was perceived by participants that some experiences had a positive influence on their learning whilst others had a detrimental effect. Perceived positive influences were previous exposure to workplace competency-based training, driving a truck, riding a pushbike (knowledge of vulnerability directed attention to safety aspects), previous driving experience, and previous motorcycle riding experience (more fine motor skills as well as easier to understand training information and visualise concepts). However, previous experience was also perceived as a negative influence by other participants due to the need to unlearn bad habits. Hence, past experience appears to have mixed effects on learning to ride a motorcycle.

*“I think having the past practical experience of riding a (motor)bike I could take on board straight away exactly what they were talking about a lot easier” (male, Group 6).*

*“An under 30 person, that’s how you did things. You just get in and do things. You didn’t have any preconceived way of doing things. But as you get older that all changes and we learn things. So I have to go through a lot of unlearning” (40+male, Group 1).*

Additionally, participants mentioned a number of different styles of learning which needed to be recognised and accommodated. Participants generally viewed the instructors as particularly proficient at recognising individual ways of learning and addressing these needs. Several participants mentioned modes of presentation that best suited their learning such as visual aids, verbal description, and kinaesthetic “hands-on” experience. Some of the key teaching techniques mentioned were: continual feedback/explanation; positive reinforcement; facilitating involvement and interaction in group situations; personal anecdotes/stories; modelling of correct techniques; repetition; and the grouping (chunking) of information into smaller manageable steps.

*“The way they did it was very effective because they kept adding bits to it.....it was habit forming I guess” (male, Group 3).*

*“It was very interactive. It wasn’t just sit there and watch the video. Sort of go through lots of questions. So from a learning perspective that was quite good because it actually enabled you to ask questions, get feedback from the instructors, and draw upon their experiences as well” (male, Group 4).*

*“Repetition, getting it right. Doing it the right way and doing it until you got it right.....they knew what they wanted and they kept you going until they got what they wanted” (female, Group 7).*

*“I’m a cerebral learner. I’ve got to understand the theory before I can do the practical shit, that’s just me.....so they’d take me aside and talk to me and work me through it and explain the physics of the bike” (40+male, Group 8).*

*“I don’t like sitting there and talking for ages. I’m kind of like let me know what I need to do then let me try to do it” (male, Group 7).*

*“The trainers went and did what they were telling us to do before we had to do it. I like to see something done and then do it myself. It doesn’t matter if I think about it or read about it. I think showing you, doing it, works fine” (young female, Group 2).*

*“They spent a lot of time with me as an individual rider.....that individual attention was good” (young female, Group 10).*

Beyond the teaching techniques utilised, a particular theme that was apparent was that learning for trainees is enhanced by their perceptions of credibility of the instructors and the level of rapport that is developed. The importance of this is evident in the following quote:

*“It’s wisdom coming from someone that you’ve spent the morning bonding with and understanding. They’re on the same page as you. They’re not a bunch of smug arseholes that think they know everything and they’re not a bunch of old farts that have been there and done that and are going off at you for not being perfect” (young male, Group 5).*

***Theme 2: Much information from training does transpose to actual on-road riding following licensing, however the most salient information is that which was personally encountered and reinforced in the on-road environment.***

Collectively participants recalled an abundance of information and skills that was taught in the course. However, particular aspects were recalled by some participants but not others. It was apparent that although each person had completed the same training course and met the same competencies, actual learning varied from person to person. Overall, information recalled could be summarised under the following categories: vehicle checks; safety apparel, basic vehicle operation (gears, indicators, brakes); riding techniques and crash avoidance (e.g. countersteering); road conditions; awareness of potential injury; and on-road scanning and riding strategies (roadcraft). A combination of practical and classroom sessions appeared to foster greater understanding and retention as shown in the following quotes:

*“They taught us down there (practical sessions) and showed us examples and then made us do it until we got it right. But I think they introduced it in the video” (referring to countersteering; young male, Group 2).*

*“When you’re here (in the classroom) and they say something to you, you mightn’t have much of a grasp of how important it is until you’re out there on the road” (40+male, Group 1).*

The usefulness of training information and skills in real-world riding situations experienced subsequent to licensing is of particular importance. Riders who had no previous riding experience prior to training commonly reported that “everything” they learned in training was beneficial for on-road riding following licensing. Elaboration of these experiences revealed behaviours such as basic vehicle control, changing gears, wearing appropriate protective clothing, keeping their eyes up, and breathing calmly when stressed. More experienced participants largely reported the benefit of learning roadcraft during training as shown in the following quotes.

*“Preparation for worst case scenarios.....just before nine o’clock in the morning when the mum’s dropping the kids off at school and she’s reversing out of the driveway” (male, Group 8).*

*“There were these two 4WDs speeding, one behind the other and I was in the next lane. And one decided to stop and the other one veered into my lane without looking. But because I hung back (I avoided a crash). I think they taught that.....you need to see things ahead” (female, Group 2).*

*“Avoiding an accident.....I could see it coming before it happened” (male, Group 3).*

*“Once again the training, they said to you ‘just treat everyone out there as if they’re out to kill you’. And they are, unintentionally they are. A woman pulled out of a sidestreet and once again everything they (the instructors) taught me, they helped” (male, Group 5).*

However, it was also evident that sometimes information taught in training was not utilised in subsequent on-road riding. It was only when an incident happened that training knowledge became salient. Therefore, in these cases training information only gained personal relevance

for the riders through experience and did not prevent them from actually committing errors or taking unnecessary risks.

*“If I’m just a bit too relaxed and overshoot the corner, do something stupid.....you have to think back specifically to what you were supposed to be doing and what you learned here and why you weren’t doing it and try to remember it for next time” (male, Group 9).*

*“They can teach you how to react in a situation but you can learn that and you’ll be A1 crash hot today because you learnt it today. But you mightn’t have that situation for 12 months and when the actual event happens, try to remember it” (40+male, Group 10).*

*“We had an accident at Easter on the Harley.....I didn’t have leather pants. I had a vest, I didn’t have gloves.....we wear full leathers now, we won’t get on the bike without them. We learnt from our mistake” (female, Group7).<sup>2</sup>*

## **Discussion**

The aim of this study was to explore how motorcyclists retained information from training and whether teaching approaches used during training facilitated individual learning needs. Consistent with established adult learning principles it was found that motorcyclists have a range of individual learning needs. According to trainees these were indeed predominantly met in this sample. It is apparent that the training instructors identified individual learning needs well and employed a range of teaching techniques to address these. Central to this process was rapport building with trainees. In comparison to Bailey’s (2003) study where driving instructors reported incidental use of the learner-centred approach, rider trainers in the current study appeared to have a more systematic and dedicated commitment to the learner-centred approach. The implication of this is that training should have been an engaging and fulfilling experience for trainees. This generally appears to be the case in this current sample.

Whilst participants reported that effective learning took place, it is important to consider the validity of knowledge and skills learnt during training in terms of how it relates to actual post-

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<sup>2</sup> Further elaboration revealed that the benefits of protective clothing had been stated to the participant during training yet she chose not to wear protective clothing at the time of the crash because her husband didn’t wear any.

licence on-road riding. That is, what safety outcomes were achieved from training? Evaluations of rider training have generally not found support for it in terms of crash reduction (see Haworth & Mulvihill, 2005). This current study reported mixed results for actual riding following licensing. Many participants indicated that training was useful for avoiding potential crashes (by applying roadcraft). Knowledge and skills from the course were applied once licensed and participants overwhelmingly found these of value. However, in contrast there were several reports of crashes and near misses where training was perhaps not of value in an applied sense regarding the prevention of these incidents. This suggests either a lack of learning transfer, a decay over time of information learnt, or that other factors not addressed in training (e.g. of an attitudinal or motivational nature) influenced rider behaviour once licensed. Training is therefore arguably not enough to always keep riders safe in the traffic environment unless skills are practised, honed and tempered with self-control.

The second theme generated from this study is that the most salient information from training is that which has been subsequently experienced on-road. This suggests several possibilities: 1) information from training may decay unless subsequently reinforced by experience; 2) learners may be more able to integrate information from training once they have had some riding experience as opposed to the pre-license stage where there is potential for 'information overload' due to the cognitive resources required in initial skill acquisition; and 3) the information may become more personally relevant to novice riders once some experience has been gained. Hence, implications exist for graduated licensing for motorcyclists in terms of implementing mandatory post-licence training to refresh skills and knowledge, and foster continued learning. This is an issue that requires further research attention.

### *Limitations*

This study had several limitations that must be considered when interpreting the findings. Firstly, because participation was voluntary it is possible that sampling bias existed and only people who viewed their training more favourably or were interested in the topic attended. Secondly, participants were sampled from only one training organisation (albeit with a large and diverse client base). This study therefore provides a preliminary exploration of the issues under investigation and further research across various training organisations is required. Thirdly, although participants shared their perceptions of training, the qualitative method

cannot measure actual levels of learning (i.e. participants can only report what they have learnt not what they don't know or have not learnt).

### *Conclusion*

Motorcycle training, like other learning situations for adults, must accommodate a range of individual needs. A flexible learner-centred approach is well received by trainees and appears to foster genuine understanding. However much can still be done to improve learning opportunities for motorcyclists by reinforcing and extending their learning beyond the initial licensing stage. This will require the attention of training practitioners, researchers, and government alike. For example, second phase training at three to six months following licensing could be trialled across several training providers and evaluated. Such training should focus on consolidating skills from pre-licence training and further aim to address rider attitudes and motives contributing to risk taking behaviour. Researchers commonly examine statistics in a quest for 'truth' and practitioners are often guided by their own instincts of what works best during training. Whilst Jerrim (2003) called for more collaboration between practitioners and researchers, perhaps an enlightening view is that which is seldom sought: a view from the other side of the fence; the views and experiences of trainees.

### **References**

- Bailey, T. (2003). *Differences in teaching approaches among car driving instructors*. In proceedings of the Australasian Road Safety, Policing, and Education Conference, Sydney.
- Beatty, L., Gibbs, G., & Morgan, A. (1997). Learning orientations and study contracts. In F. Marton, D. Hounsell, & N. Entwistle's (Eds.) *The experience of learning* (2<sup>nd</sup> Ed., pp. 3-22). Edinburgh: Scottish Academic Press.
- Biggs, J. (2003). *Teaching for quality learning at university: What the student does* (2<sup>nd</sup> Ed.). Berkshire, UK: Open University Press.
- CIECA (2002). *The EU ADVANCED project: Description and analysis of post-licence driver and rider training. Final report*. The Hague, Netherlands: CIECA.
- Delahaye, B. L. (2005). *Human resource development: Adult learning and knowledge management* (2<sup>nd</sup> Ed.). Brisbane: John Wiley and Sons Australia Ltd.

- Entwhistle, N. (1997). Contrasting perspectives on learning. In F. Marton, D. Hounsell, & N. Entwhistle's (Eds.) *The experience of learning* (2<sup>nd</sup> Ed., pp. 3-22). Edinburgh: Scottish Academic Press.
- Entwhistle, N. (1998). Approaches to learning and forms of understanding. In B. Dart and G. Boulton-Lewis' (Eds.), *Teaching and learning in higher education* (pp.72-101). Melbourne: The Australian Council for Educational Research Ltd.
- Haworth, N., & Mulvihill (2005). *Review of motorcycle licensing and training. Report # 240*. Melbourne: Monash University Accident Research Centre.
- Jerrim, A (2003). *Working in parallel*. In proceedings of the Australasian Road Safety, Policing, and Education Conference, Sydney.
- Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching: The experience in higher education*. Buckingham, UK: Open University Press.
- Ramsden, P. (1997). The context of learning in academic departments. In F. Marton, D. Hounsell, & N. Entwhistle's (Eds.) *The experience of learning* (2<sup>nd</sup> Ed., pp. 3-22). Edinburgh: Scottish Academic Press.

## Appendix A

Standardised questions for focus groups.

**Bold font** indicates the five questions that are the specific focus of this paper (2, 4, 5, 6, 7).

1. Why do you ride?
- 2. What did you hope to get from the course when you commenced?**
3. At the start of the course what sort of things did you think you'd be assessed on?
- 4. What was covered in the practical and classroom sessions of the course?**
- 5. How do you think your past experiences affected how you learned during the course? For example, your past riding experience or other courses you'd done.**
- 6. Consider how you learn best. What things did the trainer do to help you understand and learn in the classroom and practical sessions?**
- 7. What things have happened on the road since you've been licensed that make you think of important things you learned in the classroom and practical sessions of your training?**

8. What else can you think of that wasn't in the course that you think you needed to know now that you've been riding a while?
9. How was your attitude/beliefs towards safety challenged or changed during training (or from being out on the road since)?

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