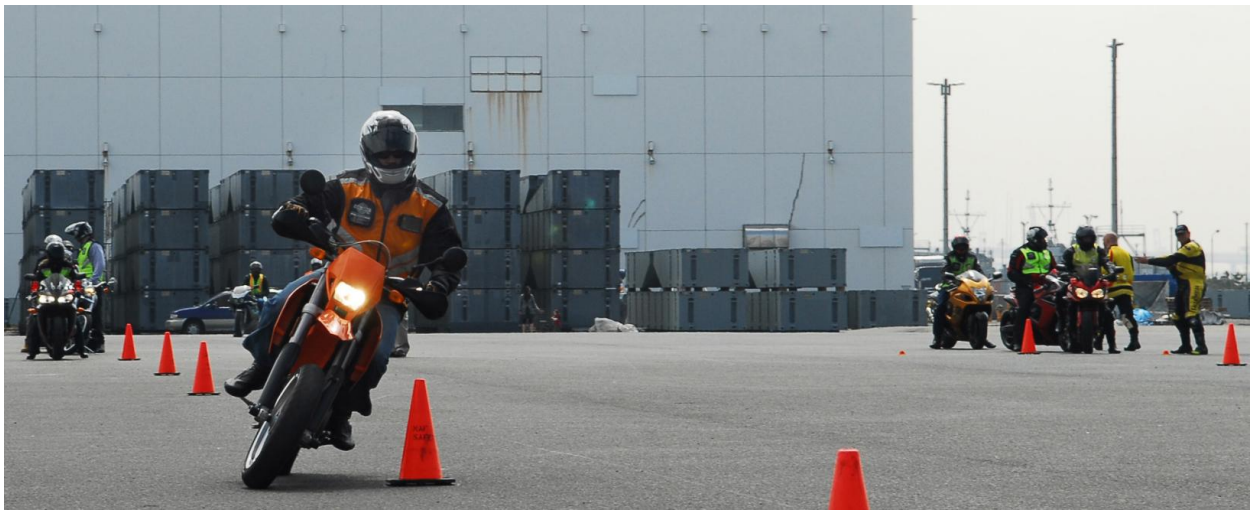
Report of

A Gathering of Experts –

The State and Future of U.S. Motorcycle Rider Training



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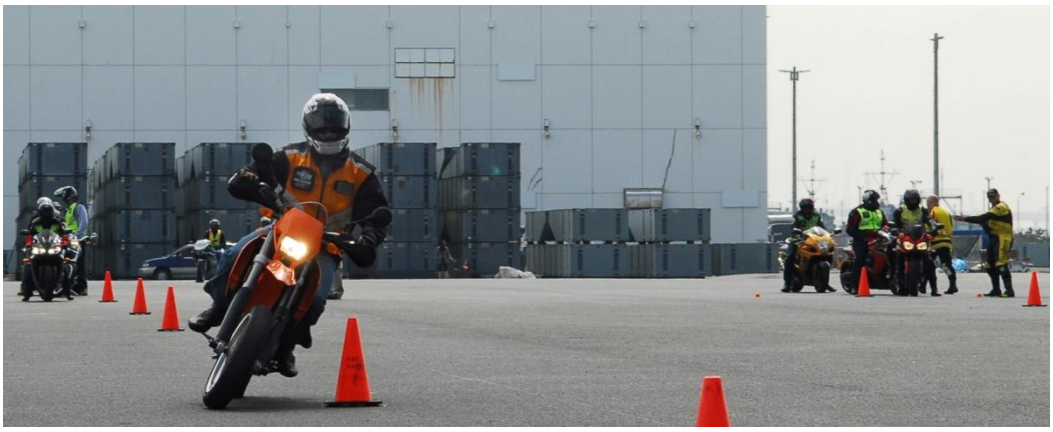


Executive Summary

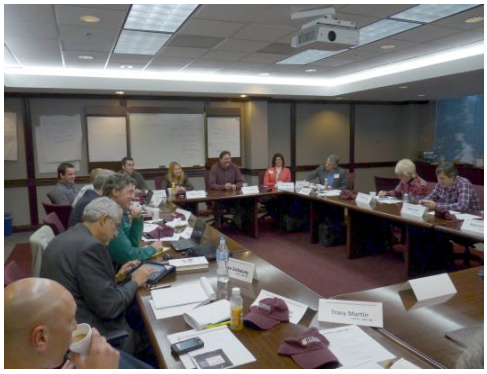
Over two days at the end of February, 2011, four organizations with an interest in rider safety invited 15 top international experts in advanced rider training to answer a simple question,

"If you wanted to improve regular rider training and reduce crashes, how would you do it?"

The group included racers, track trainers, a scientist, dirt riding experts, best-selling authors and experts in military training and insurance. The discussion was spirited, jam-packed with ideas, and occasionally tense. It was always interesting.

Some common themes emerged –

- Basic training needs to be higher level training than is currently common. We currently teach how to control-operate a motorcycle. We ought to teach more about handling dynamics and other aspects of how to ride a motorcycle.
- Appropriate training should be available for riders at every level of rider development. Continual training (*lifelong learning*) is the best path to improved competence and reduced crashes.
- There is more than one way to achieve competence. We need to promote more acceptance of alternatives to parking lot training.
- We ought to be open to offering a wide range of training models that provide enhanced wrapping to a universal set of curriculum standards.



At the end of the meeting, those in attendance came up with thirty-one recommendations, which have been synthesized into the twenty-one presented here. They represent both a practical and an aspirational road map for creating the next generation of rider training.

These recommendations are just that -- recommendations. They are not offered with hubris. We do believe that each idea is worthy of thought and consideration for anyone seeking to develop a cutting-edge rider training system. But we don't believe that each idea fits every situation. Each idea can stand on its own, without the others. Local planners have a better sense of what resonates for their community.

Note: In this document, we use "instructor," "teacher" and "coach" interchangeably to represent the front line provider of rider training. "Teaching" is used interchangeably to mean "teaching," "coaching," and "facilitating."

Today's Rider Training

Despite the existence of more rigorous training requirements in most other first tier nations, there is much to applaud about U.S. rider training. Today, rider training has gained general acceptance as the safest path to rider licensing and basic riding skill. Training programs exist in every jurisdiction except the District of Columbia. Almost every training program uses a model developed by the Motorcycle Safety Foundation, a nonprofit that shares a strong commitment to rider training (and executive management) with the Motorcycle Industry Council.

The MSF's BRC and alternatives such as the Oregon BRT are laudable curricula and a good foundation to build on for the next generation. These courses have proven their value for teaching motorcycle operations. We believe they offer a profound advantage to the beginning street rider. Empirically though, research has not yet been able to conclusively prove that they reduce accidents, injuries or fatalities despite over thirty years of observation.

Our panelists all had a well thought out (and similar) view of what they believe are weaknesses in today's rider training:

- It focuses too heavily on basic operations.
- It is light on development of riding competence.
- Development of the mental aspects of riding is largely missing.
- In some ways, current training is anti-skill, believing that advanced skills lead to bad outcomes.
- It is aimed at minimal proficiency.
- It is solely parking-lot focused.

We've set out to imagine what might need to be added, subtracted and enriched in our current training system in order to have a substantial impact on crashes – to create the ideal rider training. Panelists have some experience in crash reduction. One of us is a scientist who has been involved in much important research during the last few decades. Several of us teach advanced rider training for riders operating off-road or at racetracks. In these venues, mistakes carry a high cost.

The important thing to remember is that these are ideas provided by educators who are (mostly) not directly involved in beginner training. As such, they are a fresh viewpoint. But they are not strongly informed by traditional experts in basic training (who certainly have their own expertise to bring to the table.) Each is meant to be a suggestion for a new way of thinking – a conversation starter rather than a discussion ender.

Our panelists remain quite respectful of the system we have today. Though not perfect yet, it is a remarkable accomplishment nonetheless.

Evolving and Improving our Current System

In forging recommendations for the next evolution of rider training, we focused on barriers as well as opportunities.

A Wider Range of Training Options

Our experts strongly agreed with the notion that learning to ride on dirt is a great and forgiving way to learn about motorcycle handling dynamics. Dirt-based training both reduces the speed at which emergency maneuvers can be practiced and decreases the possibility of injury. Falls and mistakes are usually not nearly as harmful on a well maintained and forgiving dirt range.

Dirt alternatives are also less expensive to operate and dirt ranges may be easier to secure in some places. All of our experts who provide race level training agreed that dirt is a great place to learn how to ride. First-on-dirt may be a viable part of a street rider course as well.

Similarly, one of the most glaring omissions from motorcycle safety programs is on-the-road training. Financial, regulatory, marketing, and insurance barriers exist that make it difficult to operate on-road training. Despite barriers, the private sector has a growing group of on-road training providers including some members of our panel. And on the road programs are the bedrock of training in other countries.

All of our experts agreed that beginning rider training should culminate in a real-world, on-road experience. Students should be able to enroll in courses which provide on-road experience in conjunction with instructor advice and counsel.

Recommendation:
Every jurisdiction should have a dirt-based training alternative available to students who want either beginner or dirt-specific rider training.

Recommendation:
Training providers should continue to investigate how to provide on-road instruction or at least lot-based training that better approximates road experience, perhaps using road-like courses with road-like features.

Recommendation:
Every jurisdiction should sponsor annual “Spring Tune-Up” events where riders can come and get an hour or two of riding practice and tune up skills for a new riding season. These events are ideal venues to deliver safety and lifelong learning information and are ideal sponsorship opportunities for local motorcycle businesses.

Over-Centralization

Too often, limits are used as a methodology for achieving quality. However limiting content, teaching strategies, or learning interventions – making the baseline the "fence line" – only serves to protect quality within the existing vision. It can stifle ongoing innovation and continuous quality improvement.

This is especially true where courses are delivered by institutions of higher learning and other professional training organizations. Arguably institutions of higher learning have different (and valuable) expertise in curriculum development not available to other stakeholders. They are organized to provide, improve, and ensure high quality education.

Recommendation:

Regulatory agencies must regulate license granting curricula. But as much as possible, they should try to regulate core content, not all content. Regulate results, but don't regulate the minutiae of teaching and don't let regulation stifle innovation.

Graduated Licensing

Most of our panelists believe the ideal training and licensing system is one that is graduated. In this regard, the group established three tiers and focused on the training standards that should be ascribed to the tiers rather than restrictions that the graduations should entail. As trainers, we leave it to regulators to decide the regulatory aspects of each graduation. That said, we anticipate that limitations would include motorcycle size or weight, hours of operation, and limitations on carrying passengers. Only a sparse minority of panelists felt that engine size was a useful metric.

Recommendation:

A graduated licensing system should have three tiers, Basic License, Intermediate License and Full License. Intermediate and full license training is likely in the style of British "pursuit training" and is almost certainly on-road training.

To qualify for a basic license, panelists recommend a more robust version of existing basic rider training focused more heavily on riding and less singularly on operating. Basic licensing should require training and proficiency at speeds up to 30 mph.

Intermediate licensing should require completion of training and proficiency at up to 45 mph.

Full licensing should require completion of training and demonstration of proficient riding at up to legal speed limits, whatever they may be in a given jurisdiction.

Overreliance on Regulation as a Path to Competence

One of the things any realistic plan must take into account is that motorcycle training in the US is driven by state regulatory agencies. Almost without exception, motorcycle training is regulated by the local license-granting agency. Federal supports accrue to that agency. And more often than not, program management is overseen by the local driver licensing agency. Beyond that, these agencies provide the license waiver, a critical aspect of any successful training system. Regulators play a key role in expanding and improving the rider training system.

It is only natural that a regulatory agency views regulation as the path to problem solving. This is not a criticism; it is simply a cultural inevitability. Regulation and standards comprise "one leg of the stool" necessary for a good rider training system.

Rider training, however, is primarily an *educational* activity. Institutions of higher education (and even the agencies that regulate them) know that over-regulation of the educational product leads to poorer overall outcomes. This is because the course is less able to meet the individual learning needs of its participants. It is also less able to benefit from "field innovation" where front-line educators discover, try and perfect small and simple, yet highly beneficial curriculum improvements.

Recommendation:
In those states where there is not an effective balance between experts regulators and expert educators, states should develop robust cooperation with local educators to ensure that curricula are educationally strong and properly flexible. This involves making sure that curriculum delivery is outcome focused rather than focused on unit times, inflexible delivery demands, and process agendas.

Recommendation:
In those states that use quality inspectors, that role should evolve into one of roving senior trainer. The mission should be to empower competence rather than to discover incompetence. This might mean that senior trainers schedule observation, team-teach, and conduct workshops for instructors rather than simply show up, observe and criticize. They would provide a more valuable role as partners to the instructor cadre, rather than empowered critics. This is a proven methodology in education.

Recommendation:
Program managers, rather than individual instructors, should be held accountable for the quality of the educational product. In those instances where programs have decided simply to provide a class – not

provide a high quality class – it is the provider who is at fault. Incompetent instructors should be screened out by their employers.

Uncrowding the Learning Space

Any vital learning system must have a method for flushing outdated curricula and teaching strategies. If we subscribe to the notion that rider training gets "one bite of the apple" for the vast majority of students, it has to be able to respond to changes more quickly than it currently does.

Things like fuel valves, chokes and engine cutoff switches are all subjects that are over-emphasized in current curricula (due to their historical importance.) They need to be mentioned rather than featured since they haven't been an important aspect of motorcycle operation for nearly a decade. Purchasing gear is another aspect ripe for revision. One option would be to give a brief description of how gear works and refer students to online video for particular information about each kind of gear when they are ready to purchase.

By making use of continuous improvement, regular updating and modern online supplements, we can manage to provide a more robust training – one that is more focused on riding -- within the same, practical time frame.

Recommendation:
Curricula should have an ongoing process for revision and refreshment for all aspects beyond a core base of timeless material. Everything else should be "fair game" for replacement by something more critical or more robust.

Recommendation:
Going forward, experts should divide learning into relevance-rated tiers and begin to focus more strongly on the more relevant tiers. Less relevant tiers should be addressed in supplemental ways like online resources and video that is available outside of class and whenever needed.

Use of Online Tools

Panelists had a variety of ways that online tools might be used to enhance learning. These included –

- Prerequisite video that students should watch before class explaining various general aspects of motorcycling, how the class will work and what to expect to learn.
- Various perception tests and games that build visualization concepts for road safety.
- Quality Assurance assessments
- Pre and post testing

Where general information is provided in class, "learn more" links should be provided for those who want to learn more or who might need more information (i.e. How to select a jacket) at some time in the future. Education should familiarize students with a go-to web resource that educators can utilize for both in-depth content and safety education.

Recommendation:
Future training should rely on a multimodal mix of traditional education and web resources for both enriching education and promoting safe riding.

Validation of Dogma

Just as evaluating the current usefulness of curricula and educational strategies is paramount, so too is evaluating the utility of dogma. A perfect example of this is the never-ending debate regarding two-finger vs. four-finger braking. Traditionalists demand that riders use four fingers for braking and advanced trainers are just as insistent that riders use two. Each has a useful argument, but frankly, neither is summarily conclusive. To a large extent, these kinds of arguments are "howling at the moon."

In motorcycling, only a few process dogmas are valid. For example, *brake smoothly* is an outcome dogma focused on measuring the result of braking. *Brake using four fingers* is a process dogma, because the outcome is more subjectively determined by rider skill and road conditions than the number of braking fingers. *Brake using both brakes* (while not *always* the best choice) is a process dogma that probably remains valid because the negative outcomes of single brake usage are well documented causes of road crashes. Yet even that idea retains some controversy.

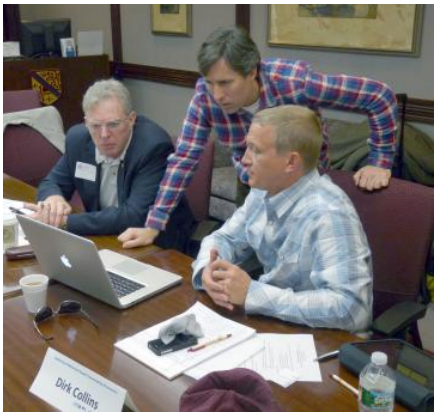
Recommendation:
Curricula should largely (but not universally) avoid dogmatic and singular instruction unless the point is outcome-focused. As much as possible, curricula should strive to integrate a general outcome focus rather than a general process focus.

Recommendation:
Curriculum should avoid the process belief of one musculoskeletal way to operate a particular control.

Students do best when they adopt prior learning to new skills. The important aspect of any physical skill is the result. Results are what matters.

Ongoing Development of Professional Educators

In the US, today's motorcycle training system is largely provided by public and private professional educators, but the system under-relies on them for curriculum development and curriculum modification. Today's higher education organizations develop curricula for all kinds of training from nursing, to emergency medical services, to noncommercial flight training and other advanced programs. Like these professions and skills, motorcycle riding requires specialized abilities that are often poorly understood by those outside the group.



Higher education has something to offer to rider training as well. As is often the case in hobby-related education, motorcycle teachers are drawn from the hobby, not from the education community. Often they can benefit from a more well-rounded teaching skill set. Strong riders are not necessarily effective teachers.

Today's rider training is generally "narrow-cast" to a small skill set of teaching techniques that a curriculum provider has tied to a specific course. But rote delivery is not an effective substitute for teaching. In education, the modern trend is toward well-qualified educators bringing a wide range of teaching techniques into the classroom.

Recommendation:

Every jurisdiction should have a panel of educational experts to evaluate, develop, and continuously improve basic curriculum. This group should be made up of providers, curriculum experts from higher education, and representatives from the training system management entity.

Recommendation:

We recommend the development of a teacher training institute for motorcycle educators. This training should focus on a wide range of teaching modalities and techniques that are "course-independent." This professional development system should provide teaching and facilitation skills that can improve the delivery of any riding curriculum.

Under-reliance on understanding how things work

One of the key instructional philosophies of mainstream curricula is that students don't need to know the "why" of something, only the "how." In fact, basic rider training discourages teaching why things work as they do, considering it a distraction. This is antithetical to all other kinds of operations and safety training and even to most higher education. Pilot training and weapons system training (for example) place a high importance on understanding the why of choices. Educators believe that many learners integrate skills by understanding cause and effect. A full understanding of cause and effect results in an enhanced ability to perform the task with a high degree of certainty. This is especially important in rider training as some aspects of riding are counter-intuitive and some are inconsistent with 4-wheel vehicle operation.

Our current system still relies on the notion that riders need only to know how to operate the controls, they don't need a robust understanding of motorcycle dynamics. This leads to teaching strategies like giving a list of things that are slippery rather than providing a broad understanding of traction and how to manage it.

Our experts – particularly those with background in military training – were adamant that proper training in operation of equipment requires an underlying understanding of how the equipment works and responds to controller inputs. They agreed that it is not simply enough to say "push to turn."

Recommendation:
We believe the under-reliance on understanding why operations work as they do is a particular weakness of our current training system. To the extent that the learning space is too crowded to accommodate the why of riding, we believe that other elements should give way to accommodate this important aspect.

A Realistic Teaching Space

Arguably, the single biggest impediment to rider training is finding a range space that meets the standards of existing curricula. This problem has gotten consistently worse each decade as more communities embrace environmentally friendly zoning practices. Now parking lots must include trees, grass medians, and storm water containment strategies. The days of wide open lot space are quickly coming to an end. Even public institutions like community colleges can no longer build large, unobstructed parking lots.

Recommendation:
Attention needs to be given to how curricula can be redesigned to be taught on range facilities that are

more readily available using safety strategies that are more realistic. To the extent possible, future iterations of curricula should be designed to be taught anywhere, not just on increasingly rare lot spaces.

Recommendation:
In the alternative, a federal fund should be established to build regional motorcycle training centers that provide appropriate facilities for common curricula.

Marketing Strategy

Far too many people still believe that rider training (and even rider licensing) is an unnecessary aspect of riding. Less than half of all new riders get training and roughly a third are comfortable riding without even a motorcycle license privilege.

Traffic safety education today relies almost exclusively on modifying morality and promoting safety, a practice known as Influencing Knowledge, Behaviors and Attitudes. While this methodology is important and proven, it cannot replace or supplant Skill Acquisition.

In some ways, we are guilty of "marketing to ourselves." We sell *safety*, but the product that fills the seats is *adventure.* It is exceedingly rare for a new rider to take up motorcycling because he appreciates the safety of it.

Recommendation:
Rider safety programs should operationalize and preach the notion that more training is better and accept that a full continuum of rider training from beginning to track to racer all leads to better street riders. Most track experienced riders will tell you that it generally leads to less risky and more precise street riding – not the opposite.

The Marine Corps has experienced great success with their *Semper Ride* program. Several of our panelists played integral roles in its development. This initiative has contributed to a change in culture, penetrating a formerly isolated riding population with engaging and meaningful content. It has also promoted a more respectful vision of riders by the non-riding population and leadership. *Semper Ride* is remarkable and unique in the way that it taps into the actual motivations of Marine riders as a path to rider competency. Unlike most safety education, it takes a holistic -- and realistic -- approach to promoting safety.

Recommendation:

The U.S. needs a civilian version of *Semper Ride* as its national rider safety marketing strategy.

Recommendation:

The rider safety training system should not be shy about embracing and utilizing prevailing motivations in marketing to new riders. We sell safety, but most riders are buying adventure. Our marketing should be about having a safe adventure, not simply about safe riding. More engaging marketing can be one strategy for increasing training participation rates, particularly in promoting lifelong learning.

Like Riding, Getting There is Half the Fun

The next exciting evolution of rider training is still to be discovered. Certainly it will build on the current evolution. And certainly it will rely on multi-modal educational strategies that offer:

- a richer understanding of riding dynamics in class,
- a broader range of classes, venues and types of education,
- and utilization of modern, natural, learning modalities like online resources and video.

The ideal rider training of the future combines a classroom experience that is more focused on understanding motorcycle dynamics with a wider range of riding practice (perhaps incorporating dirt training and on-road training.) It uses curriculum design that is not limited to training space that is increasingly impossible to find. And it offers top educators the opportunity to test and refine new and better ways of teaching.

For the student who chooses “one bite of the apple” every part of his or her training must be rich, robust and current. For those who rise to the level of enthusiast, mid-level training should be available that is focused on solid skill development.

For those who desire to become expert riders, advanced level courses should be readily available in every jurisdiction. In motorcycling, as in jet plane flying, there is simply no evidence that more education or more robust skill development leads to bad outcomes. In our experience, just the opposite is true. And it is these expert level enthusiasts who are mentors to new riders and who have the greatest ability to influence them.

Tomorrow’s rider training – if it is to be successful – must continue to become “higher education.”

Participating Experts

The following group of experts participated in *The Gathering of Experts in Motorcycle Training.* By inclusion here, each endorses the findings of this report.

Panelist	*Affiliation*
Andrew Krajewski	Association of State Motorcycle Safety Administrators
Blair Fox	US Insurance Services
Bobbie Carlson	Cape Fox Professional Services
Christopher Johnson	Washington Motorcycle Safety Training
Dirk Collins	One Eyed Bird
Dylan Code	California Superbike School
Gary LaPlante	Moto Ventures
James V. Ouellet	Motorcycle Accident Analysis
Janice Bagley	US InsuranceServices
Jeff Tilton	One Eyed Bird
Jim Schmidt	The Rider School
Keith Code	California Superbike School
Peter J. Hill	US Marine Corps
Steven Zarbatany	Motorcycle Training Institute
Tracy Martin	Total Control Training

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Summary of Recommendations

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