



## Create Awareness – Take Action

The BRAKE Driver Awareness Education Strategy:  
*Reflections on fifteen years in Queensland high schools*

A submission to the  
Joint Select Committee on Road Safety

By

Robert Duncan  
CEO BRAKE Driver Awareness Limited





## OUR BELIEFS

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Novice drivers are an at-risk group. They are endangered.

**Zero Fatalities** is our goal.

Better engineering of roads and vehicles works.

Better policy and policing works.

Targeted awareness campaigns can open young minds.

**But it is knowledge gained through education that gives teenagers the resilient tools to modify their long-term behaviour.**

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*The BRAKE Driver Awareness program is high school courseware built upon evidence-based methodologies. Founded through community action in rural Queensland, BRAKE is widely recognised for its world's best practice courseware.*

*BRAKE is a registered Australian charity.*

**Brake is a simple, inexpensive classroom program targeted at year eleven students.**

*Brake shapes attitudes towards road risk for young Australians.*

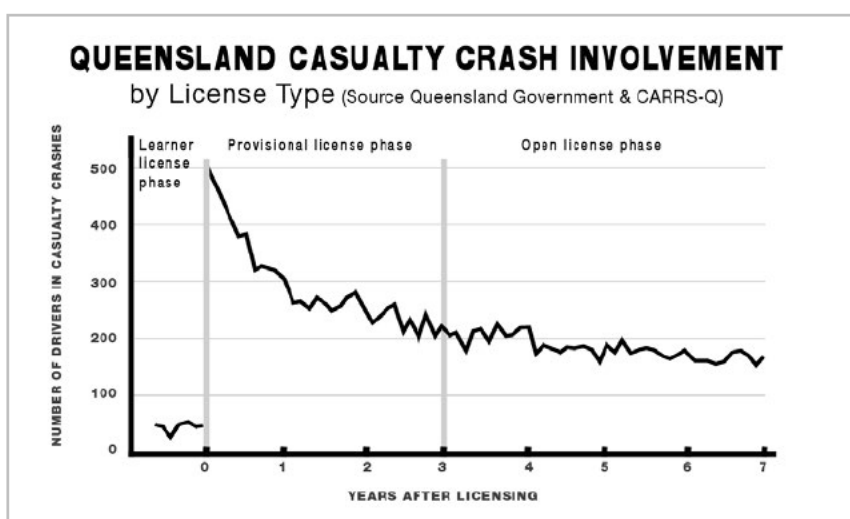
I am a police Sergeant in South East Queensland.

One of the most dreaded tasks amongst our officers is the "Twelve O'Clock knock". This is where we have to tell anxious parents that their teenage son or daughter has been killed or badly injured in a road crash. It is a devastating experience for all concerned.

As part of my MBA studies, I researched best practices in road safety education worldwide. I wanted to see if anything could be done about this tragic ending to young lives, lives once so full of promise.

Two things stood out to me in that research.

The first is a graph I am sure you are all familiar with. It shows the most vulnerable time for any driver is the first eighteen to thirty-six months of independent driving, typically after getting their P-Plates.



The second is research on cognitive development in teenagers. This shows that the teenage brain is still very much a work-in-progress.

The pre-frontal cortex responsible for decision making and risk assessment is the last brain area to fully develop, often leading to ill-considered behaviour.





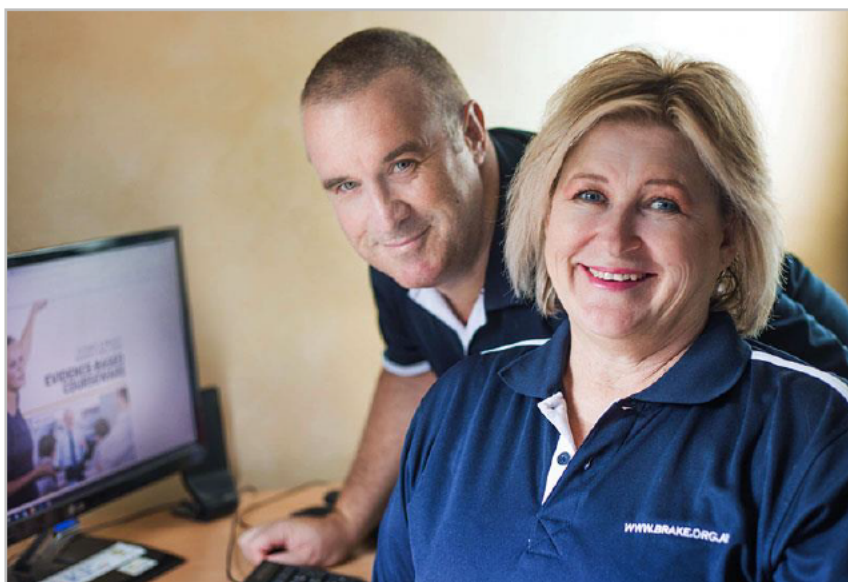
Worse, while most adults can attend to seven simultaneous inputs, the teenage brain barely manages four. This has safety consequences.



Teenagers also have a natural "optimism bias", which causes them to overestimate their maturity and abilities. Together these factors seemed to be a possible root cause for the awful casualty statistics shown in the graph above.

#### COMMUNITY ACTION

We live in a small, semi-rural community south of Brisbane. But we are not powerless.



*BRAKE founders Rob and Belinda Duncan*

In 2005, a local action committee was formed, gathering parents, road safety professionals and educators together. The result was an education program called BRAKE, targeted at pre-learner drivers in year eleven of high school.

Our goal was to create a knowledge "meme" to give teenagers the language to talk about road risks while emphasising why the understanding of risk was so vital to their safety on the road.

We decided that the best way forward was an educational program taught in a familiar schoolroom environment over several weeks. It needed to be led by their own teachers using instructional multi-media, group discussion, and reinforcement quizzes.

BRAKE launched its first classes in 2006 in Beaudesert High School. We were endorsed by the Queensland Police Service, Queensland Ambulance Service, Education Queensland, and several academic research organisations, including Queensland University of Technology road safety researchers CARRS-Q.




Initial corporate and government support enabled us to offer the BRAKE courses cost-free to schools. We thought our novice-driver program was so important that we needed equitable access to all students, regardless of location or financial circumstance.

BRAKE has been taught in over 150 schools by 450 teachers to over 70,000 students since then.

While our business model has been forced to change, our goals are the same.

BRAKE remains a popular course appraised and supported by the Queensland Transport and Main Roads Department and the Queensland Curriculum Assessment Authority.

“In my 30 years as a teacher, I have seen many attempts to help students become safer drivers. BRAKE is, without doubt, the best I have seen and deserves the support of all who would like to make an active contribution to all of us being safer drivers.”

  
Curriculum Leader- Pathways and VET  
Saint Augustine’s College

### HOW BRAKE FITS IN WITH THE ROAD SAFETY COMMUNITY

Looking at the Queensland Casualty Crash Involvement graph, it is clear that crash rates level off after several years of driving experience.

That base-level of crashes is itself declining over time is due to several factors:

1. Better road engineering
2. Better vehicle design
3. Better safety features like seatbelts and airbags
4. Better laws and road safety policies
5. Better policing

These essential road safety factors continue to garner incremental improvements, for which we are all thankful.

However, the fact remains that novice and teenage drivers are involved in crashes at several times the rate of more experienced drivers.

Many programs have been designed to raise awareness of this issue, particularly those aimed at teenagers themselves. These include:

1. TV, print, poster and social media campaigns
2. Crash site simulations and demonstration days
3. Half-day seminars outside of the school environment
4. Advanced driving courses

Research shows that each of these can create short-term awareness, even fear, in the minds of novice drivers.



*A 10-minute award-winning film made in Tyneside to make teenagers think twice about road safety  
Made by Ghost Street Films for **Road Safety GB North East***

Unfortunately, international research also suggests their long-term recall, effectiveness, and resiliency is low. Like a sugar hit, the positive effects fade quickly. Too much exposure becomes a turn-off and can lead to denial behaviours in teenagers.



However, the critical issue is this. What can teenagers do with any increased awareness generated by these awareness campaigns?

What actions can they take? What lessons can they learn, remember and apply in their daily life?



**BRAKE** believes all young drivers want to become good drivers – it is our job as responsible adults to teach them how.

The eight-part **BRAKE** course is designed to impart knowledge of the risks teenagers are about to face on the road. We use the normal educational process.

We believe that students learn best when using the same framework they use when studying other subjects. That is, at school, in class, surrounded by their peer group.

The Queensland Curriculum and Assessment Authority evaluated the **BRAKE** courseware and authorised its use in high schools.



Students who successfully completed the **BRAKE** course are eligible for an extra one Queensland Certificate of Education point (or QCE point) at the end of year twelve.

**BRAKE** is the only road safety education provider to be granted the right to contribute to a student's formal education.

In summary, the **BRAKE** courseware presents relevant, well-researched information that students can understand. Students internalise the language and concepts through group discussions and later call on it as they become independent road users.

We see it like a vaccine that provides a shortcut to disease resistance. In this case, the disease is road crash trauma and death. Our vaccine offers an understanding of risk perception and management in terms meaningful to year eleven students.

The knowledge of risk management they gain from **BRAKE** is of fundamental importance in the first months of independent driving.

**BRAKE** sees itself as a small but vital part of the whole road-safety ecosystem.

## **BRAKE'S CURRENT OPERATIONS – AN EVOLVING STORY**

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Our goal in 2005 was to provide the courseware free to students. We successfully sought funding from commercial and government organisations and community groups to make this happen.

While there was initial enthusiasm from corporate and governmental agencies, ongoing funding proved much more challenging to secure.

Therefore we transitioned to a user-paid system, charging fees for teacher training and student courses.

Fortunately, Queensland's Transport and Main Roads Department stepped in at this time to provide funding to schools where they could use this to purchase the training from BRAKE.

Our focus since then has been driving down costs of both the delivery and management of the training by developing online solutions.

BRAKE has funded this through the judicious use of operating revenue.

### **COURSE MANAGEMENT**

We secured some funding for developing an online management application for schools, teachers, classes, and students in our initial stages.

Called BOS or BRAKE Online System, it is a robust, scalable and secure application approved for use in schools by Education Queensland.

### **PROGRAM DELIVERY**

BRAKE is currently delivering courseware via CD ROM. Updating content is expensive, time-consuming and unreliable. Reporting and analysing usage is entirely manual. Copyright enforcement is fraught.

We are developing a new online delivery, management and analysis system. This new BRAKE Learning system will allow easy scaling to many schools at a low incremental cost.

### **CURRENT FOCUS**

BRAKE is six months into a 12-month plan to deliver courseware to schools online and have allocated internal funding for this purpose.

We are seeking to integrate the bespoke BRAKE course management system and the content delivery systems. This integration will ensure that schools purchase and manage their courseware to minimise BRAKE's central staff costs while increasing teachers access to reporting and control.

Apart from our Year Eleven courseware, we are developing road safety awareness programs for junior high and primary schools.



When should you start talking to your teenagers about safe driving skills?



How about today



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Also, there is a pressing need for a parent's program designed to support both the senior and junior courses.

We are developing these three new BRAKE courses with curriculum specialists and digital media consultants.

### **ABOUT SCHOOLS AND CLASSES**

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BRAKE has chosen three age brackets where research into cognitive brain development indicates there are significant changes in how a young mind processes information.

Therefore, at these times, students are more open to absorbing new concepts and points of view about their place in the world.

#### **1. The BRAKE Primary Course**

The first is the transition from "Preoperational Stage" to "Concrete Operational Stage" at ages 7 to 8.

Here, the young students become more aware of external events and understand that others have separate drives and motivations.

BRAKE introduces the risks and dangers they face as road users – as both pedestrians and bicycle users.

We will use BRAKE's cartoon character MAX, the gorilla, which has proven to be a popular and valuable metaphor.



*"Max can come out from hiding and mess things up, creating havoc and danger unless you watch out for him".*

## **2. The BRAKE Junior School Course**

In years seven to eight, students transition into the "Formal Operational Stage", where the wider world becomes known to them. They start to use logic to understand and solve problems.

The BRAKE courseware introduces road safety concepts using problem-solving exercises, illustrating ways to avoid risk by planning and situational awareness.

## **3. The BRAKE Year Eleven Course**

By year eleven, students are entering the peak of their learning abilities and are seeking independence. The brain is still optimising neural connections, speeding up cognitive processes and stabilising synaptic connections, starting from the back of the brain.

The pre-frontal cortex is the last to mature, and it is responsible for impulse control and decision making.

The BRAKE course gives students insight into the asymmetrical nature of their brain development. Our job is to provide them with the knowledge to help them navigate their way forward, using mainstream education processes and peer-group discussion in a classroom.

## **4. The BRAKE Parent Program**

Informing parents about the BRAKE program is extremely useful. BRAKE will provide parents with a brochure that outlines what their child is learning about road safety at the start of each course.

He's been studying how to drive for more than FIFTEEN years



Your driving is what he'll  
**SEE, LEARN & IMITATE**



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The brochure will have a QR Code link that will lead to a brief overview video about the BRAKE concepts. This video links to a page outlining the core road safety issues, including a reinforcement quiz.

There are links to further road safety information we encourage parents to study to better understand the BRAKE concepts.

## IN SUMMARY

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1. BRAKE is an education program approved for teaching in schools.
2. BRAKE targets students entering into new cognitive development phases with age-specific information about road risk perception and management.
3. BRAKE sprang from a community action committee in rural Queensland but has received multiple awards and accolades for its innovative, world's best-practice courseware.
4. BRAKE has the support of police and ambulance services, educational authorities and academic research organisations.
5. BRAKE is a registered charity that provides low-cost delivery of quality road-safety information to students.
6. BRAKE has online delivery systems that allow for providing highly scalable education solutions into school networks.
7. BRAKE has a low central management cost and a low incremental cost as the BRAKE solution scales.
8. BRAKE has shown a highly successful, fifteen-year commitment to driver awareness education.

## THE HISTORY OF BRAKE

BRAKE was initiated by Police Sergeant Rob Duncan and his wife Belinda in 2006.

They have been helped by a concerned group of community leaders, ambulance officers, teachers and parents to develop and deliver the program to schools.

*Sergeant Robert Duncan received the Australian Commendation for Brave Conduct, the Royal Humane Society of Australasia Silver Medal for Bravery and the Queensland Police Service Bravery Medal in 2006.*