

# Addressing Adolescent Risk-Taking through Technology

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## Biographies

Maureen Elliot is the Manager of School and Youth Programs for the Roads and Traffic Authority, NSW. She has worked specifically in the area of health promotion and child injury prevention. She holds a Masters degree in community health, nursing and in education.

Since her appointment to the RTA in 1998, Maureen has been responsible for the overall management of such programs as Safer Routes to School, the Road Safety Education Program, the Youth Program and most recently the Safety Around Schools Program.

Greg Meehan is the Manager of School Education Programs for the Roads and Traffic Authority, NSW. He is responsible for the development, implementation and evaluation of the programs in children's services and schools as well as the management of a program of professional development in road safety for educators throughout NSW.

He has worked in the area of education, specifically management and co-ordination of Personal Development, Health and Physical Education (PDHPE) in secondary schools and as a Senior Curriculum Advisor (PDHPE) K-12 prior to his appointment at the RTA in 2002.

## Abstract

Although road safety education has been delivered in all NSW schools as part of a mandatory curriculum for the last ten years, evidence confirms that road safety for adolescents is based, not simply on knowledge, but on the attitudes and behaviours of young people using the road environment.

The redevelopment of the secondary school road safety education resources has sought to address the ways in which road safety is communicated to young people within the school environment. As technology is the most rapidly developing area of education, a strategy was developed to use interactive technology to engage year 7 and 8 students in exploring risk taking and decision-making as road users. A new secondary school resource has been developed including a CDROM, video and website, using age-appropriate actors and realistic situations. This resource depicts common risk-taking situations for adolescent pedestrians, cyclists, passengers and future drivers. The activities associated with this resource provide opportunities for problem solving, decision-making and discussion amongst teachers and peers.

The resource has been supported by professional development for teachers and well as teacher resource notes that assist the teacher in linking the curriculum based activities to the new PDHPE syllabus.

This paper provides an opportunity for those working in road safety, in a variety of settings, to visualise the concept of road safety using a technology framework that can be adapted to meet the needs of the audience. This model of delivery has been focus-tested and trialed by students and teachers and received substantial endorsement as a tool for influencing the attitudes and beliefs of young people with regard to road safety.

## **INTRODUCTION**

School based road safety education remains a critical component of the Roads and Traffic Authority's strategy to ensure the safety of children and young people travelling to and from school. Whilst the number of children killed or injured on NSW roads has decreased significantly in the last 10 years, there remains a view that any injury or loss of a child from a road related accident is unacceptable and preventable.

The road environment is a complex one. Legislation has changed. There are more vehicles, capable of greater speed, competing with an increased number of pedestrians. As well, we know more about the limitations of children in the traffic environment. To adjust to these changes, road safety education in schools has needed to change and adapt to these influences.

In NSW, Road Safety Education is part of a mandatory curriculum delivery to all school students in year K-10. The main curriculum framework in which Road Safety Education sits, is the PDHPE curriculum, which as its title suggest, combines a number of key health and safety issues as well as other living skills.

To ensure that Road Safety Education is not only taught, but taught well in NSW, the RTA has over the last 10 years, used a model of consultation and professional development to ensure that teachers are confident and capable of delivering road safety and utilizing the resources developed for this delivery, in the most optimal way.

As you will also appreciate, many children today are exposed to many stimuli, which influence their learning and development. The Internet, Interactive CD's simulations, holograph images are but a few of these mechanisms that capture their attention.

The most recent road safety resource development by the RTA, undertaken in consultation with the education sectors and trialed by a range of teachers and students, has used the concept of interactive technology not only to educate students, but hopefully to influence their values and attitudes to safe road use.

The resource, currently entitled 'Road Risks: Your Choice', has been developed for Stage 4, Years 7-8 (ages 12-14) and it is closely linked to the newly released PDHPE 7-10 Curriculum.

The 12 –14 year age group is a vulnerable one in NSW, in terms of pedestrian and bicycle injury, perhaps due to their increasing independence as road users. They are also the "future driver" age group and are generally still considered receptive to information about the effects of unsafe risk taking. Furthermore, it is in an age group that has been previously less well supported by road safety education in NSW schools, with regard to specific road safety education resources.

The release of the new PDHPPE syllabus for implementation into schools in 2005 provided an ideal catalyst for the development of a new suite of resources.

The issues of pedestrian safety, passenger safety, safety on wheels and future driver are explored in a number of contexts utilising concepts such as the Haddon Matrix to engage students in analysing the contributions, causes and effects of road related accidents.

The resource has 3 main components:

Interactive CD Rom

Video

Web

The rationale for using these three elements has been to ensure that all schools and teachers, irrespective of their technology capabilities or capacity – can use what ever components the resource most suit their needs.

### **Key Design Factors of the Stage 4 Resource**

The following points underpin the design concepts for the Stage 4 resource and reflect the issues affecting teachers of road safety in the classroom.

The amount of time for teachers to deliver the concepts central to road safety in Stage 4 is limited to 3-5 hours of direct instructional time.

The range of student abilities and interests contained within Stage 4 represents significant variability in terms of skills as well as cultural and socio-economic circumstances.

Any computer-based activities associated with active classroom participation should function within a networked environment as well as a stand-alone computer situation.

Any class activity involving the computer will NOT require extensive lengths of time in front of a computer to complete a task.

Computer resources can be accessed as either a class-based activity or as an individual activity supporting road safety knowledge or skills.

### **Suite of Resources**

The suite of resources has been designed around four key areas: passenger, pedestrian, safety on wheels and future drivers. Within each of these foci the key road safety issues are interwoven as part of the scenario. In this way the scenario brings into play gender issues, peer pressure and risk taking. Each learning task involves the students in the process of assessing the risks involved and their severity, the possible consequences of each and how they might minimise the harmful impacts of each risk.

Students will undertake learning activities that involve assessing risks through the observation of scripted scenarios, through visual observation of things that happen, and also through assessing potential risks that might occur as they plan to undertake a task.

### **So how does it look and work?**

Although in pre-production phase, the main elements of pedestrian, bike, passenger safety are addressed through the use of real life footage and animation depicting scenarios that students of this age can relate to.

The various vignettes and interactive activities have been developed and are currently being pilot tested with teachers and students in a number of school settings.

The following few minutes will take you through a snapshot of some of the components that make up this new resource.

## **CONCLUSION**

As with all RTA Road Safety Education Resources, teacher resource notes assist teachers in addressing teaching and learning outcomes and in the creation and delivery of lessons.

Most importantly, professional development to up-skill classroom teachers in the use of this new resource will be provided to all high schools across NSW. This ensures that resources are utilised to their fullest capacity by teachers who are trained in the use and are confident with the technology.

This resource will be launched and distributed to schools free of charge in 2004. This resource will also form part of the overall development of the new suite of high school road safety education resources planned for development in 2004/05.

## **Key words**

Risk taking, adolescents, education, interactive