

Title: The Role of Parents/Carers in the Road Safety Education of Children and Youth

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Abstract

In 1999 VicRoads instigated a review of world's best practice in the traffic safety education of young children. As a result of the review, VicRoads has reassessed its early childhood traffic safety education programs and strategies to maximise the potential to reduce childhood injury. The review established the importance of parents as road safety role models for their children and also their potential to be their primary trainers in road safety skills. VicRoads is currently developing materials to support parents/carers of children from birth to age 5 years. Distribution of materials will primarily be undertaken through community networks existing within local government.

Parents/carers also have a critical role in providing opportunities for their learner driver to gain extensive and varied driving experience prior to gaining their licence. Overseas research has shown that learner drivers with over 100 hours of driving practice have a significantly lower crash risk after becoming independent drivers. VicRoads has developed and implemented the 'Keys Please' program, which targets parents/carers and their learner driver together. This entertaining, shared learning experience has resulted in positive outcomes for increasing levels of driving practice.

This paper and presentation will describe the rationale for and the approaches being undertaken by VicRoads to involve parents/carers in the road safety education of their children. The roles that Community Road Safety Councils and local government networks can play will also be addressed.

Key Words: child, parent, role model, passenger training, driver training, pedestrian training

Introduction

If, like Athena, we all sprang fully grown and fully cognisant out of the forehead of Zeus, there would be no need for road safety education; we would know instinctively how to manage the road and traffic system safely. But human children are not born with these powers; they have to learn the skills necessary to survive in an increasingly complex traffic environment. This paper describes the role of parents/carers in that learning process which starts with the restraint of the infant in a motor vehicle and continues to the acquisition of a driver's licence by that individual eighteen years later.

The Rationale for Involving Parents

Prior to redeveloping its ten year old traffic safety education program for preschool children, VicRoads commissioned Barry Elliott to undertake a comprehensive investigation of best practice throughout the world. (1) The investigation, carried out in 1999, suggested that children's abilities to learn road safety skills have been underestimated and the role parents play in their traffic safety education has been greatly undervalued. Research into when, and how children learn road safety skills suggests that if we are to maximise the critical early learning years parents/carers are key players, and the influence they have during this time have long term effects.

When is the best time for children to start their road safety learning?

New research technologies in neuroscience have enabled scientists to investigate the brain's circuitry and to develop an understanding of how it evolves. At birth the human brain is relatively undeveloped with most of its 100 billion neurones not yet organised or connected. It is through interaction with the environment that all the unconnected neurones form connections (synapses) that may or may not be reinforced by repeat experiences into neural pathways that do not decay. The key aspects of this research for our purposes are:

- ?? Brain development that takes place before age three is more rapid and extensive than previously realized there is startling evidence of competencies previously unrecognized.
- ?? Brain development is much more vulnerable to environmental influence than has been understood with evidence of the negative impact of stress on brain function.
- ?? The influence of early environment on brain development is long lasting (i.e. up to teenage years) both negative and positive.
- ?? The environment affects not only the number of brain cells and the number of connections among them, but also the way these connections are 'wired'.

Babies start learning about traffic probably as soon as they leave the building in which they were born but no-one until now has seriously considered trying to influence their learning. Levelt (2) suggests “Permanent education should start right where children encounter their first traffic experience ...”

The European Road Safety Federation (3) in its report *Traffic Education and Training of Young Drivers*’ made the following recommendations:

- ?? Traffic education should begin as soon as children start to use the roads ... not when they enter an institution at which trained teachers are available.
- ?? The responsibility for traffic education for children of preschool age should firstly be with the parents and secondly with nursery school teachers.
- ?? Parents should be prepared for the traffic education of their children and for how to assess dangerous traffic situations.
- ?? Parents should be encouraged to practise daily routes constantly with their children.
- ?? The road itself is the most important location, particularly for preschool traffic education.

How do young children learn? How do children learn road safety

In the initial months children learn by observation of the environment in which they find themselves and the behaviour of those they see most frequently. Imitation of what is observed, so far as the infant is able, occurs even before 6 months. Levelt (2) suggests “Whenever parents in the car for example put on a seat belt, this shall have an influence on the child.” Children are able to learn even abstract things from observation of the behaviour and interactions around them by deducing what are the household’s rules norms and standards – even before they can speak.

Hitherto, while “setting a good example” has been included in the advice handed out to parents of preschool children, it has not been accorded the importance it deserves for parents of younger children. Now the role of parents/carers becomes a strategic legitimate area for road safety education with respect to 0-5 year olds for road safety authorities setting educational objectives. Parents/carers set the pattern for the child’s own later road use behaviour. Parents not only model pedestrian behaviour but also passenger and driving behaviour. Young drivers have 15-18 years of exposure to their parents’ and others driving and much of this exposure is negative.

Research undertaken in 1999 in North Carolina (4) shows a very clear link between the driving behaviour of parents and that of their children. ‘*Children (aged 18 – 21) whose parents had three or more crashes on their record were 22% more likely to have had at least one crash compared with children whose parents had no crashes. Likewise, children whose parents had three or more violations were 38% more likely to have had a violation compared with children whose parents had none.*’¹ It is likely that many of the young people with poor driver parents learned more informally from observing them than from direct instruction. When faced with the task of teaching their own child to drive, many parents make an effort to improve their own driving. Unfortunately....too late!

Children’s learning continues largely through experience and discovery influenced through rewards and punishment, trial and error and from demonstration and instruction by parents. When talking about road safety education parents immediately think of instruction; i.e. their own directed efforts rather than the informal modeling they provide on a daily basis. The reality is that most young children have learned a great deal by observation – both safe and unsafe behaviours – before their parents consider them to be ready for instruction.

We know a great deal more about the ways in which young children’s learn:

- ?? they learn holistically, and do not divide their thinking up into subjects nor progress in a predictable linear fashion.
- ?? their language development facilitates their learning at all levels.
- ?? they start from the concrete and move to the general (and do not necessarily transfer knowledge from the classroom to behaviour outside)
- ?? central to learning is the notion of reflective self-awareness (metacognition)

Young children learn best:

- ?? in a social context, when they are interacting in meaningful ways with their peers or with adults.
- ?? through their earnest exploration of the world about them, actively constructing their own understanding of it.
- ?? through their own self initiated play
- ?? with frequent and positive feedback.

What are the road safety skills children/young people need to master?

When developing road safety educational objectives for 0-5 year olds (or any age group for that matter) the most important outcome is that children (or young people) adopt safe behaviours. Elliott (1) suggests that the most scientific approach to developing road safety educational objectives is to:

- ?? analyse the pedestrian/cyclist/driving task and define the psychological skills underpinning safe behaviour.
- ?? identify the characteristics of accidents in which preschoolers/children/young people are involved.
- ?? identify how these skills develop in children/young people and what level of skill on average could be anticipated at different ages.
- ?? determine if education and training can improve the performance of any of these skills and at what ages.

In an article by Foot, Tolmie, Thomson, McLaren and Whelan *Recognising the Hazards from The Psychologist. August 1999 Vol 12 No 8 (5)* the following psychological skills were identified as essential in safe road crossing behaviour. It does not take much imagination to see the strong similarities to the skills needed to ride a bicycle or to drive a car safely in traffic. The main difference is in relation to the speed possible to the road user, the need for some vehicle control skills and the expectation that greater experience with the road system and its rules has developed some of the cognitive skills that are necessary.

Activity

Detecting the presence of traffic

Recognising safe/dangerous locations

Visual timing

Coordinating information

Coordinating perception and action

Process

visual search, conceptual understanding of traffic movement, selecting relevant from irrelevant stimuli

identifying potential sources of danger, avoiding distractibility

time to contact judgments, distance and speed judgments, acceleration/deceleration judgments

dividing attention, integrating information from separate visual fields, memory and central processing

relating the time available to cross to time required to cross, knowledge of own movement capabilities

These perceptual and their related motor skills are best developed in the situation in which they are used i.e. at the road side and in the car and in circumstances where the unskilled child or young person can be closely supervised. They are skills which take time to perfect and the learner needs as many opportunities in as great a variety of circumstances as possible with increasing amounts of independence as the skills improve. They are skills which can be acquired prior to the learner's having a full understanding of their complexity. And we now know children are much more capable of learning these than we have previously allowed.

Why Parents are Crucial

So let us put together all the advantages to inexperienced road users of involving parents/carers in their road safety education based on how, when and where children develop their road safety skills..

1. Parents care about the well-being of their baby, child, young person and are motivated to keep them safe

2. They accept and are sensitive to their children's idiosyncrasies and respond to the issues their children initiate
3. They are the models (whether they realise it or not) as pedestrians, passengers and drivers their children are going to imitate from their first year of life
4. They are with their children in the traffic environment frequently and thus have the greatest opportunity to assist the development of their skills
5. There is the potential for the parents and carers themselves to modify and improve their own behaviour when they take responsibility for the road safety training of their offspring
6. They are in the right place at the time their children are most ready to learn.
7. Early childhood centres and schools are **not** able to take children outside to the road frequently (but can provide the opportunity for reflection and reinforcement of understandings gained from practical experience)
8. It is very difficult, time consuming and expensive, to change adult behaviour. If we wish to improve this situation, we should work with parents to establish good habits in their children from the outset.

Parents Need Support

It is currently the case that parents and carers do not understand:

- ?? how influential their own modelling behaviour is during the first three years of a child's life
- ?? how they should go about training their very young children in the skills needed to scan for traffic and judge gaps during the first years of a child's life
- ?? that children learn best through discovery and self reflection – not by being given rules
- ?? that roadside training should be frequent, consistent and ongoing and in line with a child's developmental readiness
- ?? that roadside training should focus primarily on visual search skills

Thus it is important to provide parents/carers with:

- ?? information that will persuade them to model consistent safe road behaviour as drivers, passengers and pedestrians during the first years of a child's life
- ?? information and encouragement as to when, where and how they train their young children in pedestrian and passenger safety skills using appropriate methods that match their children's developmental stages
- ?? material to support roadside training activities
- ?? ongoing support from community agencies and the adult population in general in their modelling and training tasks

Elliott's review identified a number of delivery mechanisms used in Scandinavia, the UK, US and Europe to support parents in their training tasks. These included:

- ?? Television advertising/promotion in children's viewing time using a character or characters with appeal to children (UK);
- ?? Television advertising directed at parents/carers/grandparents in late news time as prime time;
- ?? Video tape plus a brief set of guidelines for parents/carers as trainers of young children from age 2 years to 5+ years distributed by visiting nurses (Oxfordshire, UK);
- ?? Mail-out every 6 months of a brief brochure with extensive pictorials for parents/carers indicating training tips for pedestrian/bike/car safety (Switzerland);
- ?? Children's Traffic Safety Club incorporating booklets to involve interaction between parent/carer and toddlers up to school age including audio song tapes, story books and specific activities for the child and parent/carer including training tips (Scandinavia, UK);
- ?? Trained parent volunteers taking two or three children at a time from a school or early childhood centre out to the roadside for specific training (Strathclyde, UK);
- ?? Combinations of the above. (6)

After market research and much consideration VicRoads is currently developing a new approach to target parents/carers in Victoria. Under the banner of *Starting Out Safely*, a series of handouts for parents of children from 6 months to age 4 is currently being developed. The first of these, for parents of babies aged 6 months, will focus on restraints and the need for parents to model correct road safety behaviour. The key messages of the next in the series, for parents of children aged 12 months relate to driveway runovers (an issue that has not been previously addressed) and the need to treat the road as a specifically different and dangerous environment when with their children. The last handout addresses

the need to hold hands in the street, develop a road safety vocabulary and look together for traffic. These materials will be available in 2002 with training of deliverers being provided as part of the process. It is expected materials in languages other than English will follow.

The approach for children aged 3.5 to 5 years is somewhat different in that it targets teachers and staff in early childhood centres as well as parents/carers. This is because more than 90% of children in this age group attend a pre-school or childcare centre offering an education program. The approach will continue to engage parent/carers actively in the practical roadside training of their children and enable staff in early childhood centres to reinforce and complement these learnings through centre based activities.

In order to reach parents/carers of children not attending institutional child care, a variation of these resources for Family Day Care providers is also under development. This resource will reflect the nature of family day care and cater for the wide range of children's ages and the differing levels of education, qualifications and facility with English among carers. This approach takes advantage of the fact that Family Day Care care providers have frequent opportunities to provide children with practical pedestrian and passenger road use experience. Through daily interaction with the parents of each child, they are also able to give role modeling/training guidance, in appropriate languages and relevant to the ages of children in their care. This material is also currently being trialed in a representative sample of municipalities across Victoria.

It is proposed to use existing community agencies both to distribute the materials and support parents/carers in their modeling and training tasks. For example, Maternal and Child Health Nurses currently check that mothers have an appropriate restraint for their baby and that they are confident they are using it correctly. There is a high level of support for extending this role to displaying posters, distributing material and providing road safety role modelling advice. Family Day Care schemes, playgroups as well as kindergartens and child care centres already have an interest in road safety and will also assist in distribution and support.

Promotional activities by local government and community road safety councils will add considerable value to the Starting Out Safely approach and investigation of mass media support is under way.

Beyond the Early Years

While this paper has so far focused on the early years, I hope that the general principle underlying the role of parents in the acquisition of road safety skills by children has become apparent. In order to achieve competence in any complex skill, whether it be piano playing, road crossing, tennis, swimming or driving, all individuals need to observe and imitate good models, practise frequently under supervision, reflect on their performance and receive positive feedback. In addition, it must be understood that the learning process takes time. Parents must not expect that at the end of their preschool year, children will be competent at crossing the road. Parents will need to continue their roadside modelling, supervision and training activities frequently and consistently until their children can demonstrate that they can be relied on to cross roads, ride bikes and eventually drive in traffic safely and responsibly.

VicRoads has produced two traffic safety education programs for primary schools, both of which reflect the need for on road, practical activity and continue to encourage parents to be actively involved in practical on road activity with their children. *RoadSmart*, which addresses the issues associated with walking, playing and traveling safely, includes Take Home Activity Sheets for children and parents to do together (usually at the road side) with additional information for parents. *Bike Ed*, which addresses cycling safety and ideally is conducted over three years, has four parent information sheets that encourage parents to make and take opportunities to ride with their children and provide information on helmets, safe bicycles and road rules.

Parents who work conscientiously with their children over the nine years it will take them to develop pedestrian competence, will not be surprised that it also takes time to develop good driving skills. The Victorian TAC and overseas researchers recommend that 120 hours of supervised driving experience be undertaken before learner drivers sit for their licence test. Parents/carers need to be convinced that this amount of practice is necessary as well as feel confident about undertaking this vital (and initially scary) task.

VicRoads developed **Keys Please**, an information session targeting both learner drivers and their parents/carers mostly organised through secondary schools although, increasingly local government is arranging **Keys Please** sessions through its own networks. A **Keys Please** session offers an opportunity for a shared and entertaining learning experience, which emphasises that learning to drive is a partnership between the learner driver and the fully licensed driver. The partners agree to provide and undertake frequent, extensive, supervised driving experiences on road and in a variety of driving situations and conditions. Support information for both learner drivers and their supervisors is provided at the sessions.

To date, limited evaluation of **Keys Please** suggests that attendees at sessions are getting their learner permits earlier and gaining greater pre-licence driving experience than would otherwise be the case.

Conclusion

The outcomes of education are rarely instant. The payoff for learning to read is not only immediate; its benefits are spread over a lifetime. Likewise good road safety habits, learned in early childhood have the potential to contribute to children's traffic safety now and into the future. An additional benefit of involving parents in their children's early education is improved road safety behaviour among this group as well. When it comes to resources, not only are we more likely to have a long term road safety benefit from investing in preschoolers, we are likely to have more impact long term than trying to change young adult drivers.

However, it is important that the road safety role modelling and training role of parents/carers does not cease when children commence school. In order to maximise the potential for long term road safety benefits, this role must continue. As children become more independent as pedestrians and cyclists, as they learn how to safely use public transport, to select safe routes to unfamiliar locations and particularly as they learn to drive, parent/carer role modelling and the ongoing provision of opportunities to gain valuable supervised experience remain vitally important.

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