Towards Survival on the Road

by Graeme S. Horsnell

Introduction

An individual's road safety experiences in the first 1000 weeks of life provide a basis for the years beyond. A well-conceived and thorough learning program can provide a sound foundation on which to build.

At the moment, there seems to be a lack of a clearly-enunciated Road Safety Education Program which takes the individual from being a passenger, to life as a pedestrian, to cycling and, finally, to driving. Knowledge, skills and attitudes learnt at each stage should be seen as carrying over to the next.

Much work is currently being done at each stage, but the interrelationships of the stages is not made clear. The net effectiveness of a situation such as this needs to be questioned.

Relevant Educational Theory

"Road Safety is most effective when it is part of a holistic approach to children's traffic safety"(1).

What better foundation on which to build a Road Safety Education Program? What is being advocated in this paper is a sequential program which lends itself to being formatted in table form showing the learning targets for each road user group and the educational relationships between those groups. Some examples, set out in table form, are presented as part of this paper. Highlighted in this approach is the need for planning and for the program to be progressive.

This approach to planning for education has been well-researched and it is timely to briefly look at the theory. A concise overview of some of the relevant theory is to be found in the Road Safety Research Report No.1, Department of Transport, UK. 1996 (2). In short, this report argues a case for psychological training set in a context of practical exercises in the context of the individual's personal developmental stage.

There have been centuries of educational research on how to structure a learning program and current programming practices seek to provide a scaffold on which to build a suitable scope for each element and an appropriate sequence for those elements. It is widely accepted in the field of child development that the teaching and learning process need to be well-structured and with clear aims at all times so that the desired outcomes can be achieved. The learner is the central figure and the appropriate balance needs to be struck between theory and practice. Such education theorists as the oft-quoted Piaget who expounded his theory based on stages, Vygotsky with his social and interactive scaffolding and the multiple intelligences of Gardner, lead one to the conclusion that any Road Safety Education Program needs to satisfy the following criteria:

- Be soundly based educationally
- have the best quality design
- be sequentially structured
- be learner-centred
- be targeted at the learner's current and future needs
- be competently delivered
- involve on-going evaluation by the mentor
- be evaluated for its relevance

All of these elements need to combine in order to maximize the positive powers of motivation on the part of the mentor and the learner. The concept of education being based on the mentor and the learner is being applied to programs targeted at increasingly younger learners. That which used to form the basis of adult education is being used for school-age students. The application of these principles can be seen in the ATSB's Novice Driver Education Curriculum for the ATSB (3) which adopts a co-operative learning approach. In essence, it is based on experienced drivers coaching novices and drawing on the motivation that can be engendered in such a setup.

The value of motivation is crucial and is referred to by Hatakka et al (4) in their overview of driver training programs. They emphasise the need for active learning and argue strongly for self-reflection as means of committing oneself to an appropriate road safety mindset.

Programming for Road Safety Education

Thorough research on Road Safety Education shows that there are many programs in a large number of jurisdictions, but precious little evidence to show how those programs are linked or can be made to link up to form a continuum for the first 1000 weeks of life and beyond. The Department for Transport in the UK (5) does go down this path in guidelines separately for Primary and Secondary Schools Road Safety Education, but the vital preschool years are not part of these guidelines. It must be said, in the context of this paper, a holistic approach is not pursued by those UK guidelines: it is conceivable that secondary school teachers will not consult the primary school syllabus and vice versa. Also, the work that might, or might not have been done, in the pre-school years is not considered in the equation.

A holistic approach

Current world's best practice in curriculum design revolves around two main elements:

- Scope – what and how much is to be learnt and
- Sequence – the order in which those things are to be learnt.

The scope is the quantum of what is to be learnt and takes into consideration the individual's developmental stage and aims to build on past learning in order to create the circumstances for future learning.

The sequence in which exposure to the road as a person grows up occurs is normally as a passenger, then pedestrian, followed by cycling and, finally, driving.

At each stage in a well-structured program, it must be assumed that the learner will progress from total dependence on the mentor through to the possibility of total independence. The progression along this continuum is for the mentor to assess.

It need not be presumed that all learners will progress from being a passenger, to being a pedestrian, then cyclist and then driver as some individuals, for example, might never ride a bicycle or a motorcycle or become a motor vehicle driver. It must be pointed out, however, that the ascending order of complexity of task would be:

- Passenger
- Pedestrian
- Cyclist
- Driver

This is not to say that being a passenger is necessarily a simple task. A common example is where an intending passenger has to decide whether to get into a vehicle whose driver has been drinking and the situation is that there are no transport alternatives. It should be noted at this point that some of the skills appropriate for a passenger of a private motor vehicle can be transferred to the public transport situation.

What can be said, however, is that the complexity of survival revolves around three elements:

- the use of the senses
- the development of skills – of thinking and decision-making and
- a set of appropriate attitudes, ie a thoughtful mindset.

A Programming Sample

The scope and sequence style of Road Safety Education Program could simply be set out in table form for public access. A possible example is shown below:

It can be seen that this extract of a table aims to set out education targets for passengers and it would cover a number of years of learning experiences. A table can be constructed for each of the other road user groups. The tables can be cross-referenced in order to show the educational overlaps and connections that arise as an individual grows.

Conclusion

To provide positive learning experiences is the best legacy we can pass on to following generations.

Road user group	**Knowledge (Know about)**	**Skills (Know how to)**	**Samples of attitudes**
passenger	Choosing seat belts/ restraints by type	Attach the belt	Self-preservation
	One person per belt	Attach the belt	
	Safe places to sit	Choose the seating position	
	Boarding safely	Use kerbside if possible	
	Alighting safely	Use kerbside if possible Open door safely	
	Keeping wholly within the vehicle	Maintain a comfortable position	Self-preservation
	Sufficient ventilation	Open/close windows safely Climate control	Attaining personal comfort
	Driver needs to concentrate	Help the driver concentrate	Self-preservation
	Sit straight and not stand, avoiding submarining	Get comfortable	Self-preservation
	Map reading	Read names and coordinates	Being helpful
	Your driver becomes ill/incapacitated	Bring the vehicle to a stop	Being helpful
	First aid	Acquire skill appropriate to age/ability	Caring for yourself and other people
	Police, fire ambulance	Know the emergency numbers: 000 or from a mobile 112	

Author Profile

After graduating with a BA and Dip.Ed from Sydney University, he taught in NSW Government Schools from 1971 to 1992 and then in the Independent School System of NSW until 2006. In those years he was responsible for the implementation of Road Safety and Driver Education Programs. He was instrumental in the writing of a Senior High School Road Safety Syllabus and assisted in the framing of the Safety strand of the Health Education Syllabus in NSW. He has also written educational programs for specific purposes in the field of Road Safety Education. In 1988, he received a special award from the Royal Australasian College of Surgeons for his work in Road Safety and has been a member of the ACRS for 20 years.

Bibliography

1 "Keeping Children Safe in Traffic (2004),OECD: http://books.google.com.au/books?id=jYvE42L4gwgC&pg=PA44&lpg=PA44&dq=road+safety+education+theory&source=web&ots=k77KL5r3pN&sig=PmnMlTG1ymYC1jIzw3ZaO1eqOTo&hl=en#PPT1,M1

2 Road Safety Research Report No.1, Department of Transport, UK. 1996 at http://siteresources.worldbank.org/EXTROADSAFETY/Resources/childdev14.pdf

3 "Development of a Novice Driver Education Curriculum for the ATSB", accessible under http://www.atsb.gov.au/pdfs/cr222.pdf.

4 Hattaka, M., Keskinen, E., Gregersen, N.P., Glad, A. & Hernetkoski, K. (2002) From control of the vehicle to personal self-control; broadening the perspectives to driver education.

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http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VN8-460MBM3-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=f777c2c789568c0b2945502c4807a418

The following links and articles have been useful in the preparation of these materials:

Christie, R & Harrison, W. (2003). Driver Training and Education Programs of the Future.

Melbourne: RACV Ltd.

Christie, R. (2001). The Effectiveness of Driver Training as a Road Safety Measure: A review of the Literature. Melbourne: RACV.

Siegrist, S (Ed) (1999). Driver Training, Testing & Licensing – towards theory-based management of young drivers' injury risk in road traffic. Results of EU Project GADGET, Work Package 3. Berne: Schweizerische Beratungsstelle fur Unfallverhutung (BFU).

Online resources:

http://siteresources.worldbank.org/EXTROADSAFETY/Resources/childdev14.pdf

http://www.atsb.gov.au/pdfs/cr222.pdf

http://www.blackwell-synergy.com/doi/abs/10.1111/j.1539-6924.1982.tb01384.x

http://www.sdera.wa.edu.au/resources.html

Other authors often cited in articles referred to:
Pettit (1994)
Thomson et al (1996)
Thornton et al (1998)
Waylen and McKenna (2002)

Landmark Case on Hands-free Mobile in UK

By Dr Will Murray, Research Director, Interactive Driving Systems, UK Email: will.murray@virtualriskmanager.net

In what is seen as a landmark case, a sales boss, called Marie Howden, who was using a legal hands-free phone when she crashed and killed another driver, was recently found guilty of causing death by careless driving. The prosecutor said: 'She lost control because she was distracted by the call. The collision would not have happened if she had not been on the phone and had been paying attention.' Her final call was to a work colleague at 8.23am which lasted five minutes before she lost control of her car. She later told officers: 'It is entirely legal to use a mobile phone with a hands-free kit. I regularly make and receive calls while driving. My car is effectively my office.'

The court heard Howden had earlier been seen swerving across the road and that 'minutes before the crash she was seen in the wrong lane and drove in front of a car. She was using a hands-free kit with wired headphones attached when she fatally crashed in November 2007.

This story, and news that the 3M company has recently banned all types of mobile phone use while driving, has added weight to the increasingly compelling body of research from around the globe quantifying the dangers of communication equipment use and driving:

- University of Utah research published in 2002 showed that drivers using a hand-held or hands free phone missed twice as many hazards as when not using the phone, due to attention diversion.
- Research from Western Australia, published in the British Medical Journal, found that driving while talking on a