

## **Development of ‘Going Solo: A resource for parents of P-Plate drivers’**

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Despite major gains in road safety over the last decade in Australia, young novice drivers remain a great safety concern, as they constitute a large part of road trauma. Drivers in their first year of driving on their probationary licence are particularly vulnerable to crash involvement. While many parents take on a major role in teaching driving skills during the L-plate phase, this role is greatly reduced during the P-plate phase. However, there is growing research suggesting that parents can exert a major influence on their child’s early independent driving and that interventions to increase parental management of newly licensed teens during the initial independent driving period are effective in improving driving behaviour and reducing crash involvement. An Australian-first booklet, ‘Going Solo: A resource for parents of P-plate drivers’, has recently been developed that aims to help parents minimise their son/daughter’s risk of crash involvement in the first months of driving. The booklet outlines the most up-to-date scientific research in the area of young drivers, and offers practical strategies to reduce risk. This paper describes the development of the booklet, including background literature searches, feedback from an expert panel and a survey of P-plate drivers and their parents on the useability and acceptability of the resource. The findings suggest that the resource is considered a useful tool by experts and community users and, for parents, instrumental in discussing and managing specific driving risks with their P-plate drivers, particularly driving with peer passengers and driving at night.

### Introduction

Young drivers face serious road safety issues. In Australia, as in most developed countries, drivers aged between 17 and 24 years have a higher rate of crash involvement per 100,000 population or per licensed drivers compared to any other age group of drivers (OECD, 2006). Young novice drivers in Australia are substantially more likely to be involved in fatal and serious injury crashes compared with more experienced drivers, accounting for approximately 25 percent of all driver deaths even though they represent only a minor proportion (12%) of licensed drivers. Last year, 227 novice drivers and 113 passengers were killed on Australia’s roads and many more were seriously injured. In Victoria alone, 50 drivers aged between 18 and 25 years were killed (TAC, 2007). Drivers in their first year of driving on their probationary licence are particularly vulnerable to crash involvement. During this critical first year of independent driving it has been estimated that novice drivers are 33 times more likely to be

involved in a casualty crash compared with learner drivers (Gregersen, Nyberg & Berg, 2003). Indeed, Figure 1 outlines the high proportion of Victorian drivers in their first years of driving compared with learner and fully licensed drivers, and the rapid decline in casualty crashes involving probationary drivers as years of licensure increase.

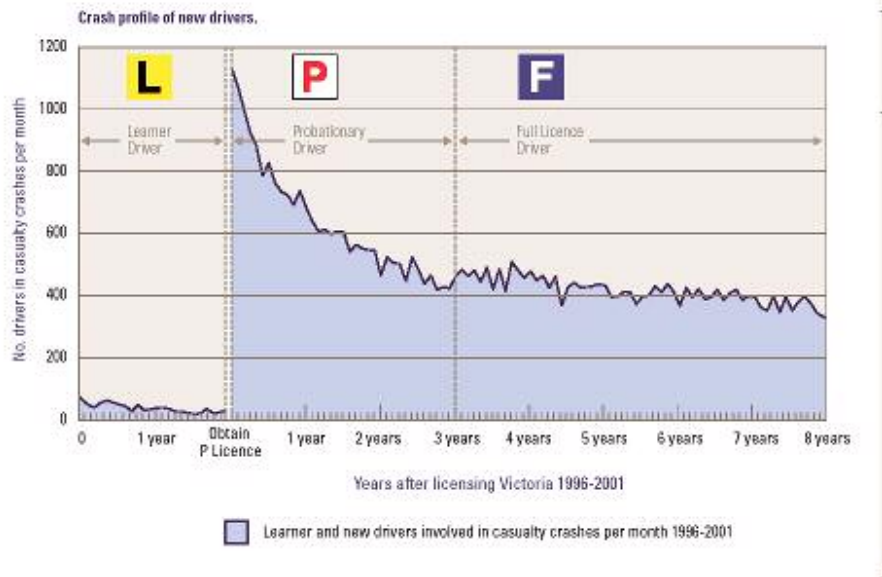


Figure 1: Casualty crashes per month by driving experience (Source: VicRoads, 2005)

Over the last three or four decades, there have been many initiatives suggested and implemented internationally and in Australia to address the over-representation of young novice drivers in fatal and serious injury crashes. These include driver training and education approaches (particularly in developing specific skills to handle vehicles and enhancing knowledge and attitudes relating to safe driving behaviour), Police enforcement of drink driving and speeding, Intelligent Transport System (ITS) technologies (particularly crash avoidance devices including speed adaptation and reduction devices, vehicle control and monitoring devices), and improved road design and operation (particularly measures aimed to reduce speeding and barrier systems to reduce injuries in single-vehicle run-off-road crashes, and the licensing system (particularly Graduated Driver Licensing Systems [GDLS]).

GDLS appear to be the most effective method to reduce crash involvement and severity of injuries during early licensure, with good evidence of crash reduction benefits (Senserrick & Whelan, 2003). These systems aim to enhance the safety of young drivers by expanding the learning process, reducing exposure to risk, improving driving proficiency, and enhancing motivation for safe driving (NHTSA, 2000). Essentially, these systems involve initial exposure to driving in low-risk conditions, and as experience and maturity increase the novice driver gradually gains exposure in higher risk conditions.

GDLS are now accepted widely in the US, Canada, Australia and New Zealand and some European countries and have been shown to be successful (to varying

degrees) in lowering crash involvement and severity of injuries during the learner and intermediate stages of licensure (Foss, 2003; Langley, 1996; Shope, 2003, all cited in Simons-Morton, Hartos & Preusser, 2006). Furthermore, it appears that these systems enjoy wide public support, especially amongst parents of teen drivers (Simons-Morton et al., 2006).

Indeed, a relatively new approach to reduce young driver crash involvement has emerged in recent years, that is, engaging parents in supporting GDLS and in the management of independent driving. It is suggested that parents are important enforcers of GDLS and have the potential to play a pivotal supporting role in the ongoing management of driving behaviours within the GDLS. While there is more to be learnt about how parents teach their teenage children to drive, decide when they are ready to test for a licence, and manage their early independent driving experience, there is growing research on the effectiveness of interventions to increase parental management of newly licensed teens during the initial independent driving period (Simons-Morton et al., 2006). These interventions focus on increasing the involvement of parents during their teen driver's learner and intermediate phase of licensing and limiting their driving as they gradually build up experience in risky driving situations. For example, parents may be encouraged to limit their teen drivers' night-time driving and carrying of peer passengers within the first 6-12 months on their intermediate licence as their teen driver gains experience and becomes familiar with driving unsupervised.

Research shows that there is a link between parenting style and young driver crash risk, especially parenting monitoring and limitations on driving. Low parental monitoring and control have been shown to be related to risky driving behaviours, traffic violations and crashes among novice drivers. Conversely, the research is quite clear that these behaviours and crash risks are lower amongst teens whose parents apply limitations (e.g., Hartos et al., 2000; 2001).

Unfortunately, many parents may be less involved in their teen's driving than they could be despite the fact that they are in a prime position to influence their driving behaviours. Moreover, while many parents place at least modest limitations on driving by newly licensed teens, these limits tend not to be very strict and not to last very long (Beck, Shattuck & Raleigh, 2001; Simons-Morton et al., 2006). This is likely to reflect several factors including a lack of knowledge of the risks associated with young novice drivers, feelings of ambivalence about novice driving, a tendency to under-estimate risks associated with their own children and a lack of availability of clear guidelines and resources for parents on managing young driver risks.

In recognition of the need for good educational resources and support (Mulvihill, Senserrick & Haworth, 2005), the 'Going Solo: A resource for parents of P-Plate drivers' has been recently developed. It is an Australian-first booklet that provides up-to-date evidence-based information for parents of novice drivers. This paper describes the development of the resource, its contents and assessments of the booklet.

#### Method

The resource was developed in two phases including i) a review of existing international resources for input into the booklet, and ii) assessments of the

booklet including comments and feedback from a panel of international expert researchers and practitioners in the young driver safety area and a telephone survey of parents of P-plate drivers.

Literature Review: The review of existing international resources was undertaken using a systematic search of national and international literature and publications and web searches.

Expert Assessments: Fourteen experts were identified and invited to provide comments and feedback on a preliminary draft of the resource (unlike the final draft, the draft sent to expert panel was written for both novice drivers and their parents). Detailed comments were received from ten experts, three international experts and seven Australian experts. Feedback was requested in the following areas of the booklet: i) content (relevance and usefulness of the information or omission of other relevant information), ii) format (appropriateness of the information and clarity for the target audience), iii) distribution (suggestions regarding methods of distributing the resource), and iv) other general feedback.

Survey of parents and P-late drivers: A number of methods were used to recruit interested participants including advertisements in leading and local newspapers, ExxonMobil employee magazine, Monash Memo e-mail circulation, a website link, and targeted letter distribution of 5,000 flyers to homes in residential areas most likely to have a teenager in the family. Advertisements and letter box distribution occurred once, and recruitment was conducted over a 3-month period. Twenty-three respondents requested a copy of the booklet and gave their consent to be contacted about the booklet. Of these, 17 parents and their teen drivers took part in a telephone survey designed to assess the useability and acceptability of the booklet.

#### Results

Development of booklet: Following an extensive search of the relevant literature and existing resources, the 'Going Solo' booklet was developed. The booklet provides information for parents to help their teen driver through the first 12-months on their P-plate licence and to inform intermediate drivers and their parents of the risks associated with driving unsupervised and provide practical strategies to reduce these risks. This includes:

Identification of the key crash risks that exist in the P-plate period,  
Strategies to reduce these risks, and  
A Vehicle Access Agreement (VAA).

The booklet consists of three major sections. The first is the introductory section which emphasises the influence parents can have on their son/daughter's driving behaviour, describes why young drivers are more likely to be involved in a crash in their first year of driving, and then lists the driving situations that heighten a young drivers' risk of being involved in a crash. These risk factors are:

Driving with peer passengers,  
Driving at night,  
Being distracted (e.g., hands-free mobile phone, CD player),  
Driving in poor weather conditions,  
Driving on high-speed roads,  
Driving when tired,

Driving over the BAC limit/under the influence of drugs,  
Driving recklessly (speeding, tailgating), and  
Talking or sending/receiving an SMS on a hand-held mobile phone.

A small section entitled 'Improving your chances of walking away from a crash' focuses on the importance of intermediate drivers driving the safest car within their market range.

The second section describes the key risk factors in detail and offers suggestions to reduce the risk, such as discussing the importance of being a good driver, setting limits for risky driving situations including driving with peer passengers, driving at night, speeding and drink driving.

The final section is the VAA, which is an agreement between the P-plater and his/her parents regarding the conditions and restrictions under which the P-plater can driver (for example, at night or with peer passengers) and how long each limit or condition applies across the first year of licensure. This section includes instructions for completing the agreement then presents two agreements. The first is an example, based on the recommended conditions and limitations, and the second is the agreement for parents and their teen drivers to complete.

Expert panel assessment: Experts provided valuable feedback on content, format and distribution. The general feedback was positive and encouraging, addressing the issues in a scientific and evidence-based manner, well structured and written. However, the majority of experts felt that the booklet was too long and detailed and should be directed at parents only.

Following this feedback, the resource was modified. The length was reduced by half. In doing so, repetitive messages or sections were removed and the amount of information presented per page was reduced. In addition, the language and tone was altered so that information was directed towards parents.

Survey of parents and P-plate drivers: Parents and their teen drivers were asked questions on the extent of reading 'Going Solo', extent of discussing solo driving risks, use of the VAA, and general comments. Table 1 shows the extent to which parents and P-plate drivers read the booklet.

Table 1: Extent of reading 'Going Solo'

Extent	Parents (n=17)	P-plate drivers (n=17)
Cover to cover	58.8	23.5
Skimmed through	23.5	47.1
Read one or two sections	17.7	5.9
Didn't read	0	23.5

The majority of parents read the booklet in full, while P-plate drivers were more likely to indicate they had only skimmed through. Almost one-quarter of P-plate drivers didn't read the booklet at all.

With regard to how the booklet assisted parents in discussing solo driving risks with their children, the majority of parents (77%) reported that the booklet assisted them in doing so, with the remaining 23 percent indicating that the booklet 'somewhat assisted' them discussing these risks.

Parents also reported that the suggestions to reduce risk that accompanied each factor were either 'very clearly explained' (69%), or 'somewhat clearly explained' (31%). Furthermore, the majority of parents reported that they discussed these suggestions and risk factors with their son/daughter (88%).

Parents were asked to indicate which risk factors were most relevant to their family's situation. The risks associated with peer passengers, particularly when driving at night were clearly most relevant to the majority of families (Figure 2).

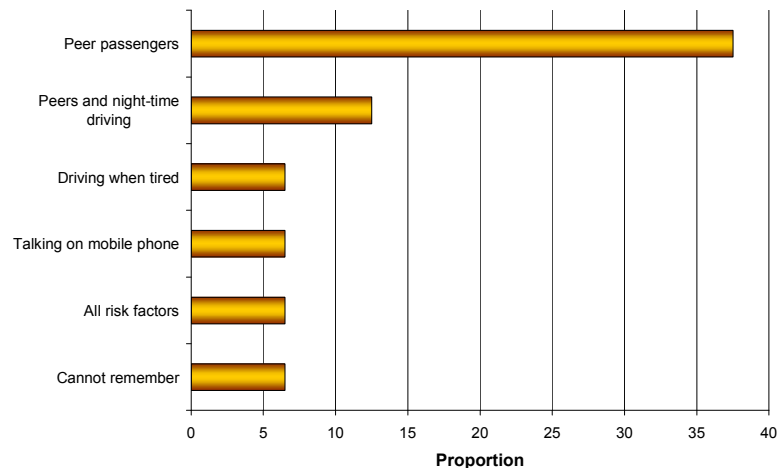


Figure 2: Most relevant risk factors

Last, parents were asked to comment on use of the VAA. Usage of the VAA was unfortunately low, with less than a third (31%) of parents setting one up. Of the two-thirds who didn't set up a VAA, 13 percent said that they planned to when their son/daughter were on their P-plates.

Interestingly, all parents who set up the VAA modified the agreement. The principle modification was to make a verbal agreement, rather than one on paper. No parent reported using rewards specifically, although one parent reported that the ability to have access to the family car was the reward. Similarly, the use of penalties for not complying with the agreement was rare.

Some general comments are listed below:

"That the booklet has been developed is the most important thing. The difference for us was discussions prior would be on an ad-hoc basis, maybe anecdotal from media or people we know, but this booklet was something concrete to discuss as it created a focal point."

"I liked the fatigue section, found it really useful for me to brush up on topics. My husband and I can sleep easy now knowing our son won't drive while tired and us waiting for him to come home. He has changed his behaviour based on the booklet as it was there is black and white about the risk of fatigue. Still on kitchen bench for our L-plate daughter."

"I found it interesting but my daughter felt it was boring and knew it all."

"Really useful to get facts and propose ideas for parents ..... Suggestions were good as it's hard to say no to a 19 year old, NO. Gradual process on VAA was good."

Discussion and Conclusions

Young drivers are particularly vulnerable to serious injury crash involvement during their first 12 months of unsupervised driving while on their intermediate licence. Several approaches to reduce crash risk of this group exist including driver training and education, ITS applications, Police enforcement, improved roads and traffic environments and GDLS. Currently, GDLS appear to be the most effective methods to reduce crash and injury risk by limiting their driving to safer, low-risk conditions and progressively lifting restrictions as experience is gained.

More importantly, research indicates that the effectiveness of GDLS can be strengthened by encouraging parents to play a role in managing safe driving practices of their teen drivers. Indeed, recent research demonstrates that parent management of the early independent driving experience of novice teens improves safety outcomes, and that it is possible to increase the effectiveness of parent management practices by providing appropriate resources.

The development of 'Going Solo' has addressed the need for a succinct resource booklet for parents of P-plate drivers. The booklet has been developed with feedback from experts in the field of young driver safety and parents of P-plate drivers in Victoria. Overall feedback from both expert researchers and parents was positive. Understandably, the expert panel were more specific in their critique of content compared with parents. However, parents also provided valuable feedback in terms of user acceptability. The finding that almost 60 percent of parents surveyed read the booklet from cover to cover was encouraging and indicates that it has received good support and engaged the target audience well.

One finding from the parent survey that requires some discussion is the usage of the VAA. It was surprising to find that there was low usage of the agreement despite the finding that driving with peer passengers was the most important risk factor that parents cited for their family situation. In addition, the majority of parents reported that the suggestions to reduce risks were very clearly explained. In the case of peer passengers, the suggestion was to set up a VAA.

Modifications to the agreement from a written to verbal format indicates that the agreement may appear too formal for many parents. Another reason for low usage could simply be a lack of motivation, however, given the majority of positive comments on the booklet, overall lack of motivation is unlikely to be the cause. Despite these drawbacks, the results suggested that the presence of the VAA acted as a prompt for many parents to at least discuss the issues and come to some verbal agreement on driving limitations.

Due to the increasing interest in the role parents can play in assisting their newly licensed driver it is important that further research continue in this area. For instance, while the current findings indicate that the 'Going Solo' booklet is well supported by parents and the road safety community in general, it would be of great benefit to conduct a larger and more representative evaluation of the effectiveness of the booklet. Such an evaluation should focus on the effect of the resource on raising parents' awareness of crash risk factors and increasing parental monitoring of independent driving in the first months of solo driving. Moreover, an evaluation of the effectiveness of the booklet on improving attitudes

to driving risks, changing driving behaviour and reducing crash and injury risk would be beneficial.

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