

QUT Digital Repository:
<http://eprints.qut.edu.au/>



This is the author version published as:

Bates, Lyndel J. and Watson, Barry C. and King, Mark J. (2010) *Required hours of practice for learner drivers : a comparison between two Australian jurisdictions*. Journal of Safety Research.

© Copyright 2010 Elsevier

**Required hours of practice for learner drivers: A comparison between two
Australian jurisdictions**

Lyndel Bates
PhD Student
Centre for Accident Research and Road Safety – Queensland (CARRS-Q)
School of Psychology and Counselling
Queensland University of Technology
Beams Road
CARSELDINE QLD 4034

Barry Watson
Associate Professor
Centre for Accident Research and Road Safety – Queensland (CARRS-Q)
School of Psychology and Counselling
Queensland University of Technology
Beams Road
CARSELDINE QLD 4034

Mark King
Lecturer
Centre for Accident Research and Road Safety – Queensland (CARRS-Q)
School of Psychology and Counselling
Queensland University of Technology
Beams Road
CARSELDINE QLD 4034

Required hours of practice for learner drivers: A comparison between two Australian jurisdictions

Abstract

Problem: This study considers whether requiring learner drivers to complete a set number of hours while on a learner licence affects the amount of hours of supervised practice that they undertake. It compares the amount of practice that learners in Queensland and New South Wales report undertaking. At the time the study was conducted, learner drivers in New South Wales were required to complete 50 hours of supervised practice while those from Queensland were not. *Method:* Participants were approached outside driver licensing centres after they had just completed their practical driving test to obtain their provisional (intermediate) licence. Those agreeing to participate were interviewed over the phone later and asked a range of questions to obtain information including socio-demographic details and amount of supervised practice completed. *Results:* There was a significant difference in the amount of practice that learners reported undertaking. Participants from New South Wales reported completing a significantly greater amount of practice ($M = 73.3$ hours, $sd = 29.12$ hours) on their learner licence than those from Queensland ($M = 64.1$ hours, $sd = 51.05$ hours). However, the distribution of hours of practice among the Queensland participants was bimodal in nature. Participants from Queensland reported either completing much less or much more practice than the New South Wales average. *Summary:* While it appears that the requirement that learner drivers complete a set number of hours may increase the average amount of hours of practice obtained, it may also serve to discourage drivers from obtaining additional practice, over and above the required hours. *Impact on Industry:* The results of this study suggest that

the implications of requiring learner drivers to complete a set number of hours of supervised practice are complex. In some cases, policy makers may inadvertently limit the amount of hours learners obtain to the mandated amount rather than encouraging them to obtain as much practice as possible.

Keywords: Graduated Driver Licensing; Teenage Drivers, Learner Licence; Hours of Practice; Road Safety

1. Problem

New drivers, particularly young new drivers, have a higher crash risk compared with more experienced drivers (Ferguson, Teoh, & McCartt, 2007). Graduated driver licensing is one countermeasure that has been shown to reduce this risk. This type of licensing system requires new drivers to advance through learner and intermediate (or provisional) phases before being granted a full driver licence (Margolis, Masten, & Foss, 2007). While research has supported the effectiveness of graduated driver licensing systems in reducing crashes, there is limited evidence regarding how they reduce crashes and the components that are most effective (Shope, 2007). Nonetheless, there is support for the role of extended learning periods as well as night time and passenger restrictions in reducing crash risks (Williams, 2007).

The safest of all graduated driver licensing stages is the learner phase (Williams, Preusser, Ferguson, & Ulmer, 1997). In this phase, new drivers are supervised by a more

experienced driver while they learn to drive. The learner has the opportunity to develop their practical driving skills including vehicle handling, awareness of the road environment and understanding of other drivers (Foss, 2007). The crash reduction benefits of the learner licence phase may result from delaying the licensing of new drivers or enhancing the learning process by increasing the amount of practice provided and the involvement of parents. This paper specifically considers the effect of requiring learners to complete a minimum number of hours of supervised practice on the amount of practice completed during the learner licence period.

Learners obtaining their driver's licence in some jurisdictions are required to record in a logbook that they have completed a certain number of driving hours under supervision. In the United States of America, the number of hours typically varies between 20 hours and 50 hours (Foss, 2007). There appears to be limited research support for the selection of these time requirements. Swedish research has suggested that learners who obtained 118 hours of supervised practice had reduced crash rates once they commenced driving by themselves (Gregersen et al., 2000), however the design of the research precluded assessment of the benefits of shorter periods. It is also possible that requiring learner drivers to complete a set number of hours prior to obtaining their provisional licence may imply to learners and their parents that completing these hours is all that is required when learning to drive. It may also inadvertently suggest that learning to drive is a simple task achievable by completing the minimum number of specified hours (Foss, 2007).

Every jurisdiction within Australia has a learner licence phase as part of their graduated driver licensing system (Senserrick, 2007). Historically, the level of supervised driving appears to be very low in Australia with a sample of 130 Victorian learner drivers recruited from schools completing an average of 20.8 hours over 24 months (Harrison, 2004).

This study examines the amount of supervised practice undertaken by learner drivers in two Australian states: Queensland and New South Wales. At the time of this study, individuals in Queensland could obtain their learner licence from 16.5 years once they passed a theory test. They had to hold this licence for a minimum of six months and display L-plates when driving. The licensing system required that all of their driving occur under supervision. If the learner was under 25 years, they were subject to a zero blood alcohol limit while driving. They lost their licence if they obtained four or more demerit points for offences within 12 months. They were able to obtain their provisional licence at 17 years after they passed a practical driving test (Bates, Watson, & King, 2008; Senserrick, 2007).

While individuals in New South Wales were able to obtain their learner licence six months earlier than those in Queensland, from 16 years, they also had to pass a road law knowledge test and were only able to obtain a provisional licence once they turned 17 years. As in Queensland, learners in New South Wales were required to display L-plates while driving and had to drive under supervision with a zero blood alcohol limit. Learners in New South Wales were subject to additional restrictions including a requirement not to

drive faster than 80 kilometres per hour and a towing restriction (Senserrick, 2007). However, the biggest difference between the Queensland and New South Wales learner phases at the time was the requirement that New South Wales learners record 50 hours of supervised practice in a logbook. The supervisor is required to sign off the log book after every driving session. This study compares the amount of practice reportedly undertaken by learner drivers in Queensland and New South Wales in order to explore the effects of requiring learner drivers to complete a specific number of hours of practice.

2. Method

2.1 Participants

Participants were learner drivers who had passed their practical driving test in either Queensland or New South Wales. They were recruited from both metropolitan and regional driver licensing centres. Only large licensing centres were used to ensure that there was sufficient throughput of learner drivers completing their practical driving test. Within the sample, 219 participants were from Queensland and 173 were from New South Wales.

Of the 690 eligible individuals approached at driver licensing centres, 494 people agreed to be contacted by telephone later, representing an initial response rate of 71.6 per cent. Of these 494 potential participants, 392 individuals completed the interviews over the phone providing a second response rate of 79.4 per cent. The overall response rate,

calculated by dividing the number of people who completed the interviews by the number of eligible individuals approached at driver licensing centres, was 56.8 per cent.

The mean age of participants was 19.82 years ($sd = 4.66$ years) although most participants were aged 17 years. Slightly more females (54.1%) than males (46.0%) participated in the study. Just over two-thirds of the sample were still studying (67.4%). The highest level of education that the participants had completed varied from primary school (4%), grade 10 (41.9%), grade 12 (37.3%), technical college or apprenticeship (7.7%) to university (12%). The majority of participants were single (84.9%) with the remaining participants either married (6.1%), living in a partnership relationship (8.4%) or previously married (0.5%). The income level of most participants was low. Over half of the sample (52.4%) earned less than \$10,000 each year before tax. A further 20.7 per cent earned between \$11,000 and \$20,000. The rest of the sample earned over \$21,000.

2.2 Design and materials

This study was a cross-sectional survey design. The interview collected a range of socio-demographic information such as age, gender, marital status, level of education completed, level of income and employment status. Age, income, education level and number of vehicles in the household were recoded into dichotomous variables for the purpose of the analysis. Age was measured as 20 years or younger and 21 years or older, income as \$20,000 or less and \$20,001 or more, education level as not completed high

school and completed high school or further education and the number of vehicles was recoded as two vehicles or less and three vehicles or more per household.

Participants were asked to recall the number of hours spent with both professional driving instructors and private supervisors, as well as report their overall amount of supervised practice in categories such as 'less than 10 hours', '11 to 25 hours', '26 to 50 hours', '51 to 75 hours', '76 to 100 hours' and 'over 100 hours'. This enabled the total number of hours to be cross-referenced with each other to check for accuracy. While the categorical data relating to hours of supervision is reported for descriptive purposes (eg. Figure 1), the statistical analyses used the combined actual hours of practice with professional and private supervisors, since this represented interval quality data.

2.3 Procedure

Learner drivers were approached at driver licensing centres in metropolitan and regional Queensland and New South Wales locations. Recruiters approached individuals who had completed their practical driving test to obtain their intermediate licence and asked them if they had passed this test. Only those who had passed the practical driving test were eligible to participate. The recruiters outlined the purpose of the study and stated that participation was voluntary and confidential. They also offered a movie ticket as an incentive to participants. If the individuals agreed to participate, the recruiters recorded their name, phone number and a list of times that they were unable to be contacted. Within a few weeks, the participants were contacted by telephone and the interview

administered. The interview took approximately 35 minutes. At the conclusion of the interview, a movie ticket was posted to participants.

3. Results

Almost all participants (98.8%) from New South Wales reported that they completed the required 50 hours of supervised practice before attempting their practical driving test. The participants from New South Wales reported a significantly higher amount of practice ($M = 73.3$ hours, $sd = 29.12$) than their Queensland counterparts ($M = 64.1$ hours, $sd = 51.05$; $t(389) = -2.11, p = .035$). However, as shown in Figure 1, the distribution of the hours of practice is different in each state. Most participants from New South Wales reported obtaining between 51 and 75 hours. In contrast, there is a bimodal distribution for Queensland with these learners tending to report obtaining either 26 to 50 hours or more than 100 hours.

Figure 1: Hours of practice by state

Although the provisional licence age and requirement to hold the learner licence for a minimum of six months was the same, learners in New South Wales were able to obtain their learner licence six months earlier than those in Queensland. A t-test was conducted to examine if there were differences in the lengths of time that participants in each state held their learner licence. The t-test found no difference ($t(389) = -.723, p = .47$). In Queensland, participants held their learner licence for an average of 17.47 months ($sd =$

21.34) while those from New South Wales held their learner licence for an average of 18.88 months ($sd = 16.23$).

As noted earlier, while the completion of the logbook in New South Wales is compulsory, it was voluntary in Queensland. Not surprisingly, learners from New South Wales ($M = 5.28$, $sd = 1.74$) completed the logbook that recorded their hours of practice more frequently than learners from Queensland ($M = 1.63$, $sd = 1.63$; $t(388) = -21.71$, $p < .001$). In Queensland, 67.7 per cent of learners were not aware that voluntary log books were available for use.

To further explore this issue, the total amount of practice undertaken by Queenslanders who completed the logbook on at least several occasions was compared to the practice reported by those who did not complete a log book at all. While it was found that those participants using a log book ($n = 26$) reported completing a greater amount of practice ($M = 78.58$, $sd = 69.54$) than those who did not ($n = 191$, $M = 62.03$, $sd = 48.01$), this difference was not significant ($t(215) = -1.55$, $p = .122$). However, it should be noted that, this non-significant result may be due to the relatively small sample of participants who used the logbook or due to participants providing a socially acceptable response.

To identify if those who completed a log book were different to those that did not complete a log book, a number of comparisons on a range of socio-demographic variables were completed. There was no difference between the groups based on gender ($X^2(1) = 0.41$, $p = .84$, $\phi = -.01$), whether the participant was studying ($X^2(1) = 3.18$,

$p = .08$, $\phi = -.12$), worked full time or part time ($X^2(1) = 1.37$, $p = .24$, $\phi = .09$), earned an income \$20,000 or less ($X^2(1) = .09$, $p = .77$, $\phi = -.02$) or had not completed high school ($X^2(1) = .15$, $p = .7$, $\phi = -.03$).

Participants were asked to identify the amount of time that they spent in lessons with a professional driving teacher and the amount of practice that they completed with parents and friends as their supervisor. There were statistically significant differences between the states for both of these situations. Participants from Queensland reported completing more hours with a professional instructor ($M = 13.25$, $sd = 17.40$) than those from New South Wales ($M = 9.05$, $sd = 15.84$; $t(389) = 2.46$, $p = .014$). Conversely, participants from New South Wales ($M = 64.26$, $sd = 30.17$) spent more time practicing with parents and friends than those from Queensland ($M = 51.09$, $sd = 30.17$; $t(388) = -3.10$, $p = .002$).

Participants were asked to rate how difficult they found it to obtain practice on a scale from one, very difficult, to five, very easy. Learners in New South Wales ($M = 3.25$, $sd = 1.34$) reported that it was easier to obtain supervised practice than those in Queensland ($M = 2.95$, $sd = 1.43$; $t(383) = 2.05$, $p = .041$). Those who reported that it was difficult to obtain practice cited reasons such as obtaining access to a vehicle or to a supervisor or time pressures.

A multiple regression analysis was conducted to examine whether gender, level of education, continuing study, employment status, age, income, number of cars available in

the household, state of residence and the length of time the learner licence was held affected the amount of practice that learners reported obtaining. As shown in Table 1, this regression model predicted only a small amount (approximately 9 per cent) of the variance in the total hours of practice reported by participants ($R^2 = .089$; $F(9) = 2.82$, $p = .003$). Within the model, the significant predictors were the participant's state of residence and the number of vehicles available in their household for them to use to learn.

Table 1: Standard multiple regression of socio-demographic factors on total hours of practice reported by learners

4. Discussion

This research suggests that the requirements of the licensing system can affect the amount of supervised practice that learners obtain. The Queensland and New South Wales licensing systems have many similarities. The biggest difference, at the time this study was conducted, was the requirement that learner drivers in New South Wales obtain 50 hours of supervised practice and record this practice in a logbook. There was no minimum required hours of practice for learner drivers in Queensland (Senserrick, 2007).

On average, participants from New South Wales reported completing significantly greater amount of hours of supervised practice than those from Queensland. More particularly, learners from New South Wales reported completing an average of 73.31 hours compared with an average of 64.11 hours completed by learners from Queensland. This suggests that the licensing requirements in New South Wales that stipulate that a minimum amount

of practice must be completed before learners are able to obtain a provisional licence encouraged this group to meet this requirement as almost all participants from New South Wales reported that they had met the minimum required amount of practice. However, this minimum practice requirement may have inadvertent effects on the amount of practice undertaken by parts of the learner population, at least when the minimum practice requirement is 50 hours.

When the distribution of practice of participants from Queensland was examined a bimodal distribution was evident. Most participants reported that they obtained either 26 to 50 hours or more than 100 hours of supervised practice. Therefore, implementing a certain target for supervised practice, such as the 50 hours requirement in New South Wales, may serve to discourage learner drivers from obtaining additional practice. This provides some support for Foss' (2007) assertion that learners and their parents believe that completing the mandated hours of practice is sufficient to drive safely. Therefore, policy makers and legislators need to carefully consider whether it is necessary to require a set number of hours of practice. In particular if they do decide to mandate supervised practice, the number of hours may be a critical factor. If policy makers are unable to legislate a sufficiently large enough amount of hours that research suggests is beneficial in increasing provisional licence safety, the introduction of a required amount of practice could inadvertently reduce the overall amount of practice obtained by learners.

Furthermore, if policy makers and legislators are considering requiring learners to complete larger amounts of hours of supervised practice, they may not necessarily require

a longer learner phase. As this research shows, there was no difference in the length of time that participants held their learner licence in each of the states. This was despite the fact that those from New South Wales were able to obtain their learner licence from 16 years compared with 16 and half years in Queensland (bearing in mind that both groups were eligible to obtain their provisional licence at the same age, 17 years).

As well as the amount of practice undertaken, the requirement to complete 50 hours of supervised driving appears to impact on who supervises the learner driver. Participants from New South Wales spent a greater amount of time practising with parents and friends compared with those from Queensland. While this may be due to other factors that vary across the states, it may reflect the difficulties, such as expense, involved with professional driving instructors being used by learner drivers to meet the requirement for 50 hours of supervised practice. It may also reflect that parents and friends are actively encouraged to participate in the supervision of the learner driver in order to ensure that the driving requirement is met. As a result, parents and friends may become more confident with their ability to teach the learner driver.

The results indicated that participants from New South Wales, who are subject to the requirement to obtain 50 hours of supervised practice, stated that it was easier to obtain this practice than participants from Queensland who had no minimum requirement. This is encouraging for policy makers who may otherwise decided to reduce the number of supervised hours required due to a belief that some learners will find it difficult to achieve these hours.

In New South Wales, learners are required to record the number of hours of supervised practice that they complete in a log book. This is a compulsory requirement of the GDL system in New South Wales. In contrast, although a log book is available in Queensland, it was not a compulsory component of the licensing system at the time of this research. The finding that participants from New South Wales completed their logbook on a more regular basis than those from Queensland is therefore not unexpected. However, the number of learners who complete the logbook in Queensland is probably affected by whether or not they were aware the logbook existed. This research found that over two thirds of Queensland learners stated that they were unaware that the logbook existed. The usefulness of the logbook as a learning tool is limited if people do not complete it. Requiring completion of a logbook by including it in the requirements of the licensing system will enable it to fulfil its purpose. If it is offered as a voluntary tool, it needs to be supported with a program that encourages learners and their supervisors to use the log book.

The results of this study differ from those of Harrison's (2004) who found that a sample of Victorian learner drivers completed an average of 20.8 hours of supervised practice over 24 months. Victorian learner drivers were not required to complete a minimum amount of practice at the time that Harrison conducted his study.¹ These differences may be due to a number of factors including the different research designs used. Harrison's participants completed a log book of their practice as their learner period proceeded. In

¹ Following his study, learners were strongly encouraged to complete 120 hours of supervised driving on a learner licence and this was subsequently introduced as a compulsory licensing requirement.

the current study, participants remembered the total amount of practice that they completed and provided this information to the interviewer. In some cases, participants may not have been able to remember accurately the amount of practice that they completed. The compulsory use of a logbook in New South Wales may have aided the recall of these participants. However, when the practice of participants in Queensland who completed a logbook was compared with those who did not complete a logbook, there was no significant difference found in the number of hours completed. On the one hand, this suggests that the recall of the hours of practice is likely to be consistent, whether a log book was used or not. However, it should be noted that while no significant difference was found, an inspection of the means indicates that those who used their logbook at least some of the time reported obtaining more practice than those who did not use their logbook. This could indicate that those who voluntarily completed their logbooks had more diligent parents that encouraged them to obtain more practice or that not using a logbook leads learners to underestimate the hours that they complete. Moreover, the non-significant difference may reflect sample size constraints. Further comparisons on a variety of socio-demographic variables did not identify any differences between the groups. Further research with a larger sample would clarify this issue.

When considering the factors that predict the total amount of practice that participants completed, the state of residence and number of vehicles in the household were significant. These statistically significant predictors demonstrate that, while the structure of the licensing system is important in encouraging learners to obtain a set number of hours of practice, other factors also play a role.

There are a number of limitations within this study that need consideration. Only larger driver licensing centres in Queensland and New South Wales were used to recruit participants. This was to ensure a sufficient throughput of drivers to recruit enough participants for the study. However, the use of larger centres may bias the results and mean the sample within this study is not representative of the general learner driver population, particularly given the relatively small sample size within this study. The data collected within this study is self-report. This may affect the results of the study. Also, as noted above, it is possible that the recall of participants was aided by having completed a logbook during their learner licence period, which was much more likely to be the case in New South Wales. Finally, it should be borne in mind that the response rate for the study was nearly 57 per cent. While this is quite reasonable compared to that typically achieved by other recruitment strategies, such as postal surveys, it still represents a limitation of this research.

Since the data was collected for this study, both Queensland and New South Wales have modified their graduated driver licensing systems, including the requirements placed on learner drivers. Within Queensland, individuals now need to hold their learner licence for 12 months (although it can be obtained from 16 years of age), must obtain 100 hours of supervised practice and are banned from using all forms of mobile phones, while supervisors and passengers are not allowed to use a speaker function on their mobile phone. In New South Wales, the learner period has been extended to 12 months, learners must obtain 120 hours of supervised practice and the practical assessments are longer

(Senserrick, 2007). Replicating this study would help to identify if making changes to the minimum supervised practice requirements has affected learner driver practices.

Further research is needed to compare the post-licensing crashes of learner drivers from jurisdictions that have different requirements for the minimum amount of practice they must complete before obtaining an intermediate licence. This research would help to identify if, and at what level, crash reduction benefits occur as a result of mandating a minimum amount of practice for learner drivers.

5. Conclusion

Requiring learner drivers to complete a set amount of supervised practice as part of the graduated licensing system appears to impact on the amount of supervised practice that these drivers complete while on their learner licence, although the implications of this impact are complex. This research indicates that the amount of practice undertaken by participants in a system with a minimum requirement of 50 hours of supervised practice (average of 73.31 hours) was significantly higher than that undertaken in a licensing system with no minimum requirement (average of 64.11 hours). However, the distribution of this practice is different in each situation. It appears that drivers with a 50 hour mandated requirement are more likely to complete an amount of practice that is just above the minimum level. In contrast, in jurisdictions that do not require a minimum amount of practice on the learner licence, learners appear to fall into two groups. The first

group completes the minimum amount of practice required to obtain an intermediate licence while the second group completes significantly more practice.

6. Impact on industry

This study clearly suggests that the decision about whether or not to require learner drivers to complete a minimum amount of supervised practice is more complex than perhaps originally conceived. Mandating a minimum amount of supervised practice does not simply increase the minimum level of practice that learners undertake. This licensing requirement may have unintended consequences such as reducing the overall amount of practice undertaken, particularly by certain subsets of the learner driver population. Therefore, prior to the introduction of this type of licensing requirement, policy makers and legislators should consider the amount of practice that is currently being completed, the number of hours that they believe is desirable for learners to complete and the possible unintended consequences that may result from imposing this requirement.

Acknowledgements

The authors acknowledge the support of the Department of Infrastructure, Transport, Regional Development and Local Government who provided a research grant that enabled this research.

References

- Bates, L., Watson, B., & King, M. (2008). The structure of the learner licence affects the type of experiences novices gain during this phase: Examples from Queensland and New South Wales. *Journal of the Australasian College of Road Safety*, 19(4), 36-42.
- Ferguson, S. A., Teoh, E. R., & McCartt, A. T. (2007). Progress in teenage crash risk during the last decade. *Journal of Safety Research*, 38(2), 137-145.
- Foss, R. (2007). Improving graduated driver licensing systems: A conceptual approach and its implications. *Journal of Safety Research*, 38(2), 185-192.
- Gregersen, N. P., Berg, H.-Y., Engstrom, I., Nolen, S., Nyberg, A., & Rimmo, P.-A. (2000). Sixteen years age limit for learner drivers in Sweden - An evaluation of safety effects. *Accident Analysis and Prevention*, 32, 25-35.
- Harrison, W. A. (2004). Investigation of the driving experience of a sample of Victorian learner drivers. *Accident Analysis and Prevention*, 36, 885-891.
- Margolis, L. H., Masten, S. V., & Foss, R. (2007). The effects of graduated driver licensing on hospitalization rates and charges for 16 and 17 year olds in North Carolina. *Traffic Injury Prevention*, 8(1), 35-38.
- Senserrick, T. (2007). Recent developments in young driver education, training and licensing in Australia. *Journal of Safety Research*, 38(2), 237-244.
- Shope, J. T. (2007). Graduated driver licensing: Review of evaluation results since 2002. *Journal of Safety Research*, 38(2), 165-175.
- Williams, A. (2007). Contribution of the components of graduated licensing to crash reductions. *Journal of Safety Research*, 38(2), 177-184.
- Williams, A., Preusser, D., Ferguson, S. A., & Ulmer, R. (1997). Analysis of the fatal crash involvements of 15-year-old drivers. *Journal of Safety Research*, 28(1), 49-54.

Table 1: Standard multiple regression of socio-demographic factors on total hours of practice reported by learners

Variable	Unstandardised co-efficient	Standardised coefficient	Unique variance
Gender	-5.85	-.07	.00
Studying	-1.36	-.10	.00
Employed full time or part time	12.73	.14	.01
Age	.79	.09	.00
Income	9.48	.10	.01
Education level	-9.13	-.10	.01
Vehicles in household	6.19	.18**	.03
State	11.64	.13*	.02
Length of time on a learner licence	.04	.02	.00

$R^2 = .079$ ($F(9) = 2.82, p = .003$); * $p < .05$; ** $p < .01$; *** $p < .001$

Figure 1: Hours of practice by state

