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# Participation in driver education/training courses during graduated driver licensing, and the effect of a time-discount on subsequent traffic offenses: Findings from the New Zealand Drivers Study



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#### ABSTRACT

Introduction: The New Zealand GDL includes a time-discount at the restricted license stage, for attendance at an approved driver education course. This is despite international evidence showing that earlier licensure associated with a time-discount can increase risk for newly licensed drivers. Objective: To examine participation in driver education courses and especially those that qualify for a time-discount; compare the profiles of course participants with non-participants; examine reasons for participation; and examine the association between a timediscount and traffic offenses once fully licensed. Method: This study was based on the New Zealand Drivers Study (NZDS), a prospective cohort study of newly licensed drivers. Data on driver education courses were obtained at the full license interview (n = 1763), driver license and traffic offense data from the NZ Driver License Registry, and other data at the NZDS interviews, Results: 94% had heard of and 49% (n = 868) participated in a defensive driving course (DDC). No other course had more than 1% participation. Compared with the others, the DDC group were young, non-Māori, and from an area of relatively low deprivation. Through GDL, the DDC group were relatively more compliant with the conditions, and less likely to crash or receive a traffic offense notice. The groups did not differ on personality, alcohol and drug use. The reason most (85%) attended a DDC was to get their full license sooner; 86% (n = 748) received a time-discount. The time-discount group were 40% more likely to receive a traffic offense notice on their full license; this reduced to 10% after controlling for other factors. Conclusion and practical implications: The results of this study, when viewed in conjunction with other NZ crash evidence, indicate that a time-discount should not be given for completing a DDC or Street Talk course.

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#### 1. Introduction

Young drivers have the highest crash risk of all drivers on the road, and the period of highest risk is the first few months of unsupervised driving (Lewis-Evans, 2010; Mayhew, Simpson, & Pak, 2003; McCartt, Shabanova, & Leaf, 2003). To try and alleviate this problem, in August 1987 New Zealand (NZ) introduced a comprehensive graduated driver licensing system (GDL). Prior to this young persons could be fully licensed on their 15th birthday, and all that was required was passing an eyesight and hearing test, answering five oral questions and 25 written questions, and completing an on-road driving test (Begg & Stephenson, 2003). The introduction of GDL changed this to a three stage licensing system that applied to all new drivers aged 15–24 years. The first stage, the learner license, allowed on-road driving but only with an experienced supervisor. It could be obtained at age 15 by passing a paper-based multi-choice test, an oral theory test, and an eyesight test. The learner license applied for 6 months, although a time-

discount of 3 months could be given by taking an approved driver education/training course. Also introduced with the 1987 GDL was a lower blood alcohol concentration (BAC) limit of 0.03 mg% (from 0.08 mg%) but in 1992 this lower limit was applied to all drivers under 20 years of age, irrespective of license status. The second stage of the GDL, the restricted (intermediate) license, required passing a practical on-road driving test. This license allowed unsupervised driving except at night from 10 p.m. to 5 a.m., or with passengers less than 20 years of age. The restricted license period was 18 months, but a time-discount of 9 months could be given by undertaking either a defensive driving course or an advanced driving course. Once the restricted license stage was completed, a full license could be issued without further testing. Under the original 1987 GDL, therefore, a driver could commence driving at 15 years of age and, with a time-discount of 3 months at the learner license stage and 9 months at the restricted license stage, be fully licensed shortly after the driver's 16th birthday.

As part of a major review of all driver licensing policies in NZ, the GDL was revised in 1999. The main changes to the GDL were: (a) it now applied to novice drivers of all ages, not just 15–24 year olds; (b) the minimum learner license period for all drivers was set at 6

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months, with no time-discount; (c) for drivers aged 15–24 years the restricted license period remained at 18 months, but a time-discount of 6 months could be given by completing an approved course (reducing it to 12 months); for newly licensed drivers aged 25 + years the comparable restricted license period was 6 months with a time-discount of 3 months; and (d) a new full license driving test was introduced. With these changes a young person could be fully licensed at 16½ years. The stages of the GDL, and the changes as described here, are summarized in Table 1. Further details of the changes have been described elsewhere (Begg & Stephenson, 2003).

The 1999 revised version of GDL remained in place until 2010, when the NZ Government launched "Safer Journeys," their Road Safety Strategy, 2020 (Ministry of Transport, 2010). This strategy identified young drivers as a priority area and signaled further changes to GDL. As of 2014, the changes implemented include an increase in the minimum learner license age to 16 years, and a more difficult restricted license driving test designed to encourage 120 h of supervised driving practice on the learner license. Also, the BAC limit for all drivers under 20 years was reduced to zero. Therefore, in 2014, a young person can commence licensing at 16 years of age, pass the restricted license test at 16½ and drive unsupervised, but with a night-time and passenger condition. If they take part in an approved course, which are currently a defensive driving course (DDC) or a Street Talk course (New Zealand Transport Agency, 2014), they can become fully licensed drivers at 17½ years of age, or 18 years if they do not attend one of these courses. With these changes the NZ GDL now meets nearly all of the recommendations for a "good" GDL. The one main exception, however, is the timediscount (i.e., the time reduction) at the restricted license stage (Williams & Mayhew, 2004).

A number of comprehensive literature reviews of driver education studies have all concluded that participation in such courses has shown little or no on-road safety benefit (Christie, 2001; Ker et al., 2005; Mayhew, Simpson, Williams, & Ferguson, 1998; Williams, 2005). Moreover, it has been shown that safety "dis-benefits" can result

if time-discounts allow earlier access to unrestricted driving (Mayhew & Simpson, 1996). In NZ, the only courses that qualify for a time-discount are the DDC or Street Talk, which are typically attended at the restricted license stage (although recent changes mean they can now be attended at the learner license stage and the time-discount carried-over to the restricted license stage). These driving courses are designed to help a driver identify and avoid or handle potential hazards that they may encounter when driving (New Zealand Transport Agency, 2015). They teach skills that can help reduce the likelihood of being involved in a crash, such as eye scanning while driving, hazard identification, and risk management. The DDC takes 9 h to complete and includes: 4 classroom sessions, 1 in-car session, and access to the online driver training system, and costs 199 NZD. The Street Talk courses vary depending on the organization running them but they typically include four 2-hour theory sessions and a practical on-road session, and cost between 140 and 190 NZD. Completion of either one of these courses qualifies the driver for a time-discount of 6 months (or 3 months for those over 24 years). Participation in such a course, therefore, would need to provide safety benefits equivalent to those gained by driving under the restricted license conditions (i.e., night-time and passenger conditions) for these periods of time (Mayhew & Simpson, 1996).

In NZ, the only published evidence related to time-discounts and the effect they have on the safety of young drivers is a study by Lewis-Evans who examined fatal and injury crashes that occurred at the various stages of GDL (Lewis-Evans, 2007). His findings showed that full license drivers who had a time-discount on their restricted license, that is they spent between 12 and 18 months on their restricted license, had a crash rate per 10,000 drivers nearly three times higher than those who spent more than 18 months on their restricted license. To receive a "time-discount" these drivers had presumably taken part in a either a DDC or Street Talk course, but which course cannot be verified as this research was based on administrative police-recorded crash data that does not include information of this nature. To provide information on participation in driver education

**Table 1**A summary of New Zealand graduated driver licensing system (GDL): license stages, conditions and main changes over time.

1987	Three stage GDL introduced	
	Applied to all new drivers aged 15-24 years	
	Blood alcohol limit 0.03 mg%	(from 1992 this applied to all drivers <20 years)
Stage 1	Learner license	
	Learner license test	Multi-choice and oral theory test, eyesight test
	Minimum age	15 years
	Minimum license period	6 months
	Time-discount	3 months for completing an approved driving course
	Conditions	Only supervised driving allowed
Stage 2	Restricted license	
	Restricted license test	Practical driving test
	Minimum license period	18 months
	Time-discount	9 months with a defensive driving course (DDC) or an advanced driving course
	Conditions	Night-time driving curfew 10 p.m5 a.m., unless supervised
		No passengers, unless supervised
Stage 3	Full license	No test or conditions
Main changes introduced in 1999		
Stage 1	Applied to all novice drivers irrespective of age	
	Learner license	
	Minimum license period	6 months
	Time-discount	Discontinued
Stage 2	Restricted license	
	Minimum license period	18 months if <25 years; 6 months if 25 + years
	Time-discount	6 months if <25 years; 3 months if 25 + years
		By completing a defensive driving or Street Talk course
Stage 3	Full license	
	Full license test	Practical driving test introduced
Main changes since 2010		
	Zero blood alcohol limit for all drivers < 20 years	
Stage 1	Zero blood alcohol limit for all drivers <20 years Minimum age	16 years

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