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Module 4: Driver Inexperience and Driver Licensing, part II

Purpose:

To present international examples of phased licensing models for new drivers

Learning Outcomes:

Upon completion of the modules the participant will be able to:

- Identify three common features of phased passenger vehicle driver licensing models currently being implemented globally
- Explain the advantages of each of the features identified
- Identify key similarities and differences between international licensing models and the licence model(s) in China

Content:

- A. Overview of Graduated Licensing for passenger vehicles
- B. Graduated Licensing Program: British Columbia, Canada
- C. Driver Licensing Model: Sweden
- D. Improvements on a graduated licensing system: New Zealand
- E. Phased licensing for drivers of other types of vehicles
 - Motorcycles
 - Commercial vehicles (United States, New Zealand, Australia)

Format:

1. Overhead Presentation

- General information on phased licensing models in x countries

2. Group Discussion

1. Compare common features of international graduated driver licensing models for passenger vehicles with the licence model in China
2. Identify features in licensing models of other jurisdictions not currently included in China's licensing model that could be beneficial
3. Identify features of phased licensing models that may not work in China (and why)

Introduction to Graduated Licensing for Passenger Vehicles

Although some jurisdictions, particularly in Canada and the United States, have traditionally allowed quick and easy paths to full driving privileges for new drivers, high crash rates for young drivers has made graduated licensing an increasingly popular approach. Since 1994, six Canadian provinces and 24 U.S. states have implemented some form of phased, or graduated licensing. Currently, just three countries have graduated licensing programs for commercial vehicles. These models will be discussed the section *Phased licensing for drivers of other types of vehicles*.

Phased licensing models, often identified as “graduated licensing” are characterized by varying levels of restriction and supervision, driver training and driver testing. They provide new drivers with the opportunity to gain driving experience gradually, under conditions that expose them to less risk. As pointed out in a Swedish document, indirectly, graduated licensing is an educational process and has the following characteristics:

- Focus on safety and gaining experience under conditions of reduced risk
- Greater emphasis on reward than punishment
- Increased risk exposure in line with greater competence and more experience
- Practice driving shall be encouraged, but under safe conditions
- Focus on both the individual and his/her environment
- Supported by a well-developed professional driver education programme, parental involvement and other factors of positive influence in the community¹

(Source: SNRA, 2000)

More than half of Canadian and American jurisdictions have some form of graduated licensing and graduated licensing is acknowledged to be a big factor in the reduction of fatality and injury rates in those jurisdictions. Positive results have been reported from all jurisdictions with some form of graduated licensing. Examples are:

- After introducing graduated licensing in 1994, Nova Scotia experienced a 19% drop in the collision rate for all drivers in the first three years.
- Among 16-year-old drivers alone, there was a 37% reduction in crashes (TIRF).
- After introducing graduated licensing in 1994, Ontario reported a 31% reduction in crashes among all novice drivers. Fatality and injury rates among new drivers were down 24%.

(Source: ICBC Class 7 Examiner Training Participant Pre-course Manual, 2001, p. 7)

A short overview of graduated licensing programs has been prepared by Dan Mayhew (1998, pp. 20-22). James McKnight and Raymond Peck provide a comprehensive overview of the features of such driver licensing programs in their report prepared for an international forum (1999, Appendix 2). Both documents are provided for reference.

¹ Formal driver education is not a requirement of all graduated licensing programs

Insulating Risk

Like an apprenticeship program, graduated licensing helps inexperienced drivers develop their skills and maturity in stages, under low-risk conditions, says road-safety specialist Dan Mayhew of the Traffic Injury Research Foundation.

NEW DRIVERS make more mistakes and have more crashes than experienced drivers. This is not surprising, as driving is a complex task requiring practice to perform well.

Paradoxically, the learning process that novices must undergo to develop their skills and become safe drivers itself exposes them to danger. How, then, might authorities make the road safer for novice drivers?

Even though many new drivers are young, countermeasures must focus on experience rather than age. Research conducted in B.C. by the Ottawa-based Traffic Injury Research Foundation (TIRF) has shown that risk associated with inexperience extends to both young and old novice drivers.(1)



Dan Mayhew

But for novices who are also young, increased risk is not just a factor of inexperience. Young new drivers are further at risk because of their lifestyles -- particularly their predilection for risk taking and susceptibility to peer pressure.

One of the most promising measures for reducing the risk of collision for all beginners is graduated licensing.(2) Although the concept has been around for decades, it has only recently been put into practice.

Graduated licensing addresses the two principal causes of the new-driver problem: inexperience and immaturity. In essence, graduated licensing allows new drivers to gain experience under conditions of low (or lower) risk.

Graduated licensing is akin to an apprenticeship program, easing new drivers into increasingly demanding traffic conditions. It achieves this by placing limitations on when, where, with whom, and how beginners can drive. These restrictions are gradually removed over time so that new, more complex traffic conditions can be mastered as novices acquire driving experience and mature. Eventually, full unrestricted driving privileges are granted.

Staged learning

While specific programs may differ from jurisdiction to jurisdiction, ideally all should include a similar set of basic components.(*). To begin with, graduated licensing programs should apply to all new drivers and should extend over a period between 18 and 24 months in two distinct stages: a 6-to-12-month learning stage and a 12-month provisional stage.

To enter the learning stage, beginners should have to pass the usual knowledge test and meet medical and vision requirements. During this stage, they should be accompanied by an adult at all times and have a blood-alcohol content (BAC) level of zero while driving. To graduate from this to the provisional stage, novices should pass the usual road test.

In the provisional stage of the program, novices should be permitted to drive without supervision during daylight hours but not at night. They should not be allowed to carry more than one passenger unless they are accompanied by a licensed adult, and they must still meet the zero-BAC requirement.

Graduation to a regular licence should require passing a hazard perception test or an advanced road test. Novices should also be required to have crash-free and violation-free driving records for the duration of the provisional stage.

It's noteworthy that this description does not include an absolute requirement for novices to complete a driver education and training program. This may appear to be a serious omission, given that driver-training courses have long been promoted as an effective means to address young-driver safety.

A recent review of studies evaluating the impact of driver education, however, provides little support for the claim that training has been an effective safety countermeasure.(3) Most of the evidence fails to show that formally trained students crash less frequently than those who do not receive training, and a few studies even suggest that they may drive less safely. Driver education has also been shown to stimulate earlier licensure and, consequently, to increase exposure to crash risk.

For driver training to become part of the graduated-licensing solution, current programs must be improved. In particular, multi-stage educational programs should be developed that complement the stages of graduated licensing, training novices to meet new types of challenges as they progress through the licensing program.

As well, the curriculum of driver education courses should be reconsidered. Research has identified the critical skill deficiencies and lifestyle factors that lead to crashes.(2) To be effective, driver education programs must address these issues.

Educators must also devote more attention to motivating beginners to use their newly learned safety skills and making them aware of their limitations on the road.

Popular restrictions

Although the case for graduated licensing is compelling, sceptics often claim that parents and teens will not support a program that they view as "too negative." Recent research by TIRF shows that this concern is largely unfounded. Parents and even teens support graduated licensing and endorse many of its contentious features, such as the night curfew.

For example, we recently conducted interviews in Nova Scotia with 500 parents and 450 teens aged 16 to 18 to determine if they supported the graduated licensing program that has been in place there for about two years. Nearly 90% of the parents who have teens in the program approved of graduated licensing, as did the majority (64%) of the teens who actually face restrictions. We found a comparably high level of support for graduated licensing in Ontario, where a program was introduced in 1994.

Sceptics also claim that teens will violate the restrictions, which are impossible for authorities or parents to enforce. Our studies in Nova Scotia and Ontario indicate that this is decidedly not the case. Indeed, compliance with the conditions appears reasonably widespread, and parents report finding it very easy to enforce graduated licensing requirements on their teenagers.

Another common concern is that teenagers will enter graduated licensing programs but then limit their driving -- in other words, they will obtain their learner's permit and then just wait for the period to expire before taking the road test to enter the next stage. For graduated licensing to be effective, teenagers need to drive and gain experience under low-risk conditions. If they simply refuse to drive, the safety potential of the program would be greatly compromised.

TIRF's research suggests that this concern is also unfounded. Teenagers in graduated licensing programs in both Ontario and Nova Scotia drive during the low-risk learning stage. Moreover, the amount of driving they do and the variety of conditions they encounter tend to increase as they progress through the system -- just what graduated licensing is meant to promote.

Documented success

Although graduated licensing appears to insulate new drivers from high-risk conditions, the question remains: Does this translate into fewer crashes?

Fortunately, the safety benefits of graduated licensing programs have been well documented. Evaluations of early initiatives in the United States have found a reduction in the crash involvement of new drivers. More recent evaluations of graduated licensing programs in New Zealand and Ontario also show positive results.

A report released by the Ministry of Transport in New Zealand found an initial 25% drop in casualties coincidental with the introduction of graduated licensing. The more stable

and sustained effect yielded an 8% reduction in crashes. A more recent evaluation of the New Zealand program replicated these findings.

The safety effects of graduated licensing programs in Ontario and Nova Scotia are being evaluated, but the final results are not yet available. Preliminary results from Ontario, however, suggest that the program has had a positive safety impact. According to an article in the *Ottawa Citizen*, roadway deaths among 16-year-old drivers have declined by 55% since the program was introduced in 1994.

In conclusion, graduated licensing is potentially more constructive than other licensing approaches because it provides the opportunity for beginners to gain experience and proficiency under low-risk conditions. It also addresses age-related factors through the use of curfews, zero-BAC requirements, and supervised driving. These measures minimize young drivers' exposure to risky situations and the chance of their engaging in risky behaviours.

Ultimately, graduated licensing's attractiveness stems from its proven safety benefits -- which is why more and more jurisdictions are implementing the system.

DAN MAYHEW is a specialist in road-safety research and policy development and the senior vice-president of the Traffic Injury Research Foundation in Ottawa, Ontario.

(*) Editor's Note: *B.C.'s new graduated licensing program matches many of the author's recommendations.*

(1) *H.M. Simpson and D.R. Mayhew, Reducing the Risks for New Drivers: A Graduated Licensing System for British Columbia (Victoria, B.C.: Motor Vehicle Branch, Insurance Corporation of British Columbia, 1992).*

(2) *D.R. Mayhew and H.M. Simpson, The Role of Driving Experience: Implications for the Training and Licensing of New Drivers (Toronto: Insurance Bureau of Canada, 1995).*

(3) *D.R. Mayhew and H.M. Simpson, Effectiveness and Role of Driver Education and Training in a Graduated Licensing System (Arlington, Virginia: Insurance Institute for Highway Safety, 1996).*

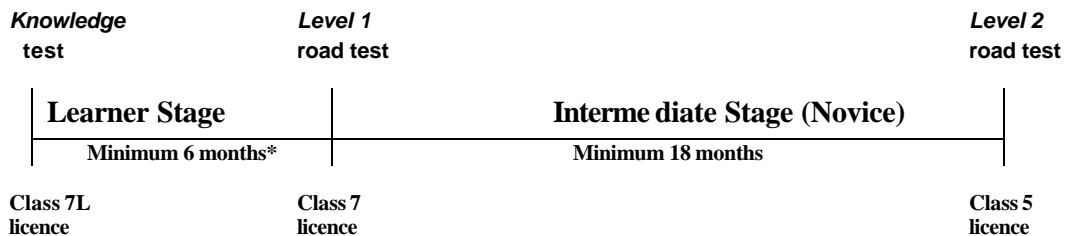
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Graduated Licensing Program: British Columbia, Canada

The following passage summarizes the BC GLP licensing parameters (ICBC Class 7 Examiner Training Participant Pre-course Manual, 2001, p. 6):

Licensing Model: British Columbia



*This period can be reduced to 3 months by successfully completing an ICBC-approved driver education course

In the past, the licensing process focused on driving skills such as steering, turning, changing lanes, speed control and parking. However, research and statistics indicate that a responsible and respectful attitude toward driving is equally as important as the ability to maneuver a vehicle on the road. New drivers must also be thinking drivers who make good decisions and are careful of the safety of others. The GLP incorporates this philosophy into the new learning materials and expects new drivers to not only drive competently but also to understand and respect the complexity of the driving experience.

British Columbia began working on introducing a graduated licensing system in the early 1990s through the Novice Driver Licensing Project. In 1994, work on the New Driver Improvement Program began. Beginning on August 1, 1998, anyone applying for their first driver's license, whether they were a teen or an adult, entered the Graduated Licensing Program. The Level 2 Road Test was implemented in December 1999 as the exit test for GLP. It will become the Class 5 Road Test now and the Class 7 Road Test will be implemented in the fall of 2000.

ICBC introduced graduated licensing to reduce the high number of crashes involving new drivers. The GLP allows new drivers to gain experience gradually by setting conditions that expose them to less risk as they learn to drive. New drivers expand their driving privileges as they gain experience, master the necessary skills and develop the attitudes and behaviours needed to handle the complex task of driving and to be safe drivers.

There are several steps to getting a full-privilege Class 5 license:

During the Learners stage, the conditions are:

- A red L (learner) sign must be displayed at the back of a new driver's vehicle
- A licensed adult driver must always be in the vehicle to supervise
- Passengers are limited to two (including the adult supervisor)

- No driving between midnight and 5 am
- No alcohol in the body while driving.

After passing the Class 7 road test, drivers enter the Novice stage. A green N (novice) sign must be displayed. The zero-alcohol condition remains in effect and the novice is not eligible to apply for a higher-class license, but the other conditions are removed.

After 18 months most new drivers are eligible to attempt the Class 5 road test. By passing this test, they demonstrate their ability to drive safely and can exit the Graduated Licensing Program.

Driver Licensing Model: Sweden

“Sweden is one of the most traffic-safe countries in the world. Nonetheless, during the last five years, 600 people have been killed and almost 80,000 injured annually, on average, as a result of road accidents....The Government considers that the current situation can no longer be accepted and consequently proposes Vision Zero as a new and aggressive road safety goal....The long-term goal for road safety in Sweden will be that nobody will be killed or seriously injured as a result of a traffic accident within the road transport system.” (Vision Zero, 1997)

According to Hans Mattson (1999, p. 41), youths in Sweden can start practice driving at age 16 with a driving school or with an approved private supervisor. The approved supervisor must be at least 24 years old and have had a valid uninterrupted license for five years. He or she must also be registered and approved as a supervisor for a named student. Students cannot take their full license test until age 18. The only required driving course is a 5-hour skid course.

Recommended Model

Educational period and progress checkpoints

The preparatory driver course is taken primarily in school. The educational period is comprised of three stages with progress checkpoints between each stage and conducted by persons qualified for the task. A theory test is taken during Stage 3, which is concluded with a practical test.

During Stage 3, it is recommended that practice driving alone be permitted, providing suitable safety precautions are observed.

Safety precautions...

The following practice driving safety precautions are recommended for the various stages:

...Stage 1

- Practice driving on roads with a maximum speed limit of 70 km/h in less complicated environments.
- Not under severe icy conditions
- No passengers
- Extra rear-view mirror and learner driver sign

...Stage 2

- Practice driving on roads with a maximum speed limit of 90km/h
- Urban areas and major rural roads
- Not under severe icy conditions
- No passengers
- Extra rear-view mirror and learner driver sign

...Stage 3

- Extra rear-view mirror and learner driver sign

Stage 3 – Provisions for practice driving alone

- Passed the accredited theory test
- Maximum 90km/h
- No passengers
- Ban on practice driving from 8 pm Friday and Saturday until 6 am Saturday and Sunday as well as the night before a public holiday
- Minimum age 17.5 years
- Learner driver sign

Compulsory modules

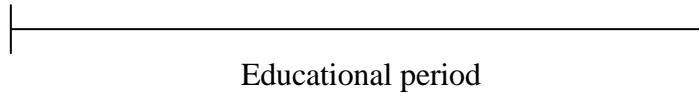
The Committee recommends the following compulsory modules:

- Demanding driving situations on rural roads at the end of Stage 1.
- Courses on high risk situations, e.g. icy surfaces and in darkness at the end of Stage 2.
- First aid training in Stage 3.

Follow-up Period

The follow-up period covers the first two years after having passed the driving test. The proposed measures to be taken during this period are intended for new drivers who are guilty of an offence that leads to their license being revoked.

Preparatory Course	Stage 1	Stage 2	Stage 3	Follow-up period
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Source: Vagrerket, 1999

Improvements on a Graduated Licensing System: New Zealand

New Zealand has had a graduated driver licensing system (GDLS) since 1987. As explained in a presentation at an international Forum (Hill, 1999, p. 21),

New Zealand’s GDLS Testing System

New Zealand has had a graduated driver licensing system (GDLS) since 1987. While it continues to produce safety benefits, New Zealand has the third worst crash record for 15-24 year-old drivers in the OECD countries. Studies have shown that three critical factors are related to the high crash rates. These factors are youthfulness or immaturity of drivers, their lack of driving experience and their increased exposure to risk.

The Land Transport Safety Authority, which is the principal road safety adviser for the government, has recently completed a comprehensive review of the driver licensing systems and has recommended a number of changes to begin targeting the risk factors facing young drivers. These include:

- Changing the licensing stage system
- Revising existing tests
- Display of learner plates and mandatory carrying of photo licences
- Creating an automatic-only licence condition
- Implementing on-road exit tests for car drivers and motorcyclists
- Creating stiffer penalties for breaches of GDLS conditions- including demerit points and instant fines

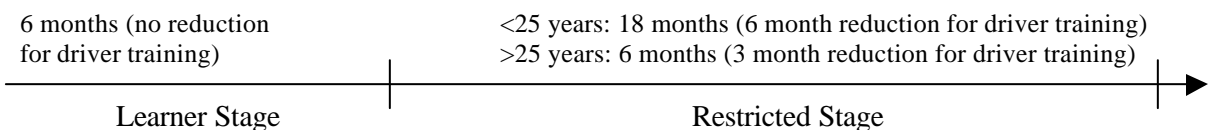
- Immediate 28-day roadside licence suspension for serious alcohol and speed offenses and immediate 28-day roadside vehicle impoundment of unlicensed or disqualified drivers.

It is expected that these enhancements will be implemented May 1, 1999.

Licensing Stages Changes

Presently only new drivers who are under 25 years old and all novice riders are in the GDLS. The proposed change is that all novice drivers and riders will be placed under the system. The following chart illustrates the proposed changes to New Zealand's GDLS.

Licensing Model: New Zealand



The new stage will no longer give time reductions for driver training in the Learner Stage. The reduction for the Restricted Stage is changed from 9 months to only 6 months for drivers aged under 25 years of age who take approved driver education. Novice drivers age 25 years and more will have a 6 month restricted period, with a three month reduction for approved driver education

*This summary of Mr. Hill's presentation was prepared by ICBC.

Phased licensing for drivers of other types of vehicles

Motorcycles

Safe motorcycle operation involves many unique skills and related knowledge. Motorcyclists are particularly vulnerable to accidents involving other road users.

A literature review (MacLean, n.d.) suggested that motorcyclists are currently required to complete a phased-type of licensing process in a number of jurisdictions:

Researchers recognize motorcyclist testing and licensing as the most promising means to achieve long-term, cost-effective reductions in crashes. The National Highway Traffic Safety Administration (NHTSA) suggests that motorcyclists should be included in graduated licensing systems, and that riders should be encouraged to pass all of the required tests for a full license within a reasonable period of time, to support the goal of reducing crashes (National Highway Traffic Safety Administration, 1997). The NHTSA recommends that riders take two motorcycle-specific Knowledge Tests. The first "Basic" Test is required to obtain

a Learner's Licence, the second covers advanced safe riding skills, and is required to obtain a Full Licence. Two Riding Tests are also recommended; the first is an Off-street Test, designed to provide an accurate measure of applicant vehicle handling skills in a controlled environment, and the second is an On-street Test, which focuses on applicant traffic sense and the ability to put safe riding principles and procedures into practice on the road. Visual and verbal communication is recommended between the applicant and Examiner during the On-street Test.

A number of jurisdictions worldwide require motorcyclists to pass a motorcycle-specific Road Test at the end of the first or second renewal period. This provides a means to ensure that rider skills continue to meet a certain standard. In addition, many American jurisdictions are progressing towards implementing mandatory rider education prior to licensing (National Highway traffic Safety Administration, 1997).

BC does include motorcyclists in the GLP; new riders who have never held any driver's licence must complete the entire program. Those who currently hold a passenger vehicle licence do not have to complete the program, but must pass the advanced level road test that GLP riders take in order to obtain the full (class 6) motorcycle licence.

Commercial vehicles

Vehicles other than passenger vehicles and motorcycles are classified various ways in different jurisdictions, and include: semi-trailer trucks, buses, smaller trucks (e.g., tow trucks and dump trucks), and vehicles used to transport passengers (e.g., taxis, limousines and ambulances).

The following discussion focuses on licensing systems for "heavy vehicles" including large and small trucks, and buses (ICBC CV Project, 2001). Just three jurisdictions currently have a graduated licensing system in place for commercial vehicles. Canada is currently involved in a national consultation process to determine whether a graduated licensing program should be implemented.

United States

New Zealand

Australia

Slides

Slide 1

Graduated Licensing:
Reducing the risks
while gaining experience

Slide 2

Graduated licensing characteristics:

- Safety and experience
- Rewards
- Exposure to risk when able to handle
- Practice under safe conditions
- Individual and the environment
- [Driver education and parental involvement]

(Source: SNRA, 2000)

Slide 3

Categories of provisions in Graduated Licensing programs:

- Reduced Exposure
- Improved Proficiency
- Enhanced Motivation

Source: McKnight & Peck 1999

Slide 4

Components of Graduated Licensing by Jurisdiction

Reduced exposure

Night Restriction
Passenger Restriction
Limited Speed
Mandatory Restraint
Visible Identifier
Delayed Licensing

Improved Proficiency

Phased Instruction

Phased Testing
Delayed Retest
Parent Involvement
Violator courses

Enhanced Motivation

Continent Advance
Early Intervention
Violator Courses

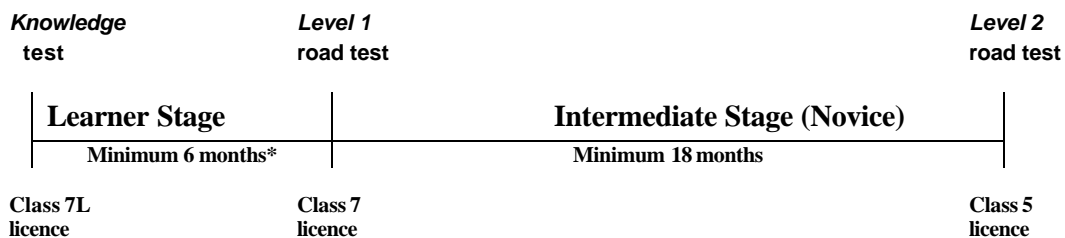
Source: McKnight & Peck 1999

Slide 5
On Following Page

Slide 6
On Following Page

Slide 7

Licensing Model: British Columbia



*This period can be reduced to 3 months by successfully completing an ICBC-approved driver education course

Source: ICBC GLP

Slide 8

Licensing Model: Sweden

(To be prepared in text)

Source: ICBC Driver Testing Forum, 1999

Slide 9

Licensing Model: New Zealand

(To be prepared in text)

Source: ICBC Driver Testing Forum, 1999

Slides 10 and 11

Graduated Licensing Models for Motorcycles – from pp. 148 and 150 of Safe Riding Guide – On following pages.